

Region 4 - CALCASIEU-SABINE BASIN

Project Number	Proposed Project Name	Presenter
R4-CS-01	Black Bayou Terraces Project	John Foret, NMFS
R4-CS-02	Cameron-Creole Freshwater Introduction Project	Troy Mallach, NRCS
R4-CS-03	First Bayou Freshwater Introduction Project	Troy Mallach, NRCS
R4-CS-04	Gum Cove Terracing Project	Troy Mallach, NRCS
R4-CS-05	Kelso Bayou Marsh Restoration Project	Troy Mallach, NRCS
R4-CS-06	East Cove Marsh Creation Project	Billy Leonard, USFWS
R4-CS-07	Cameron Prairie Grand Bayou Marsh Creation Project	Billy Leonard, USFWS
R4-CS-08	Black Lake Marsh Creation with Mini Dredge Project	Kirk Marchentell

Region 4 - MERMENTAU BASIN

Project Number	Project Proposals	Presenter
R4-ME-01	Rockefeller Gulf of Mexico Shoreline Stabilization, Joseph's Harbor East Project	John Foret, NMFS
R4-ME-02	Terracing at Dyson's Ditch Project	John Foret, NMFS
R4-ME-03	Freshwater Bayou Marsh Creation Project	Judge Edwards, Vermilion
R4-ME-04	Lower Mud Lake Sediment Trapping Project	Troy Mallach, NRCS
R4-ME-05	Northeast White Lake Beach Restoration/ Shoreline Protection Project	Charles Broussard

Region 4 - CALCASIEU-SABINE BASIN

Region 4- RPT
PPL18 PROJECT NOMINEE FACT SHEET
February 19, 2008

Project Name:

Black Bayou Terraces (CS-33)

Coast 2050 Strategy:

Restore and Sustain Wetlands (*Regional Ecosystem Strategy*)

Terracing (*Coastwide Common Strategy*)

Vegetative Plantings (*Coastwide Common Strategy*)

Project Location:

Region 4, Calcasieu/Sabine Basin, Calcasieu and Cameron Parish, South side of the GIWW,
West of Gum Cove Ridge

Problem:

Saltwater intrusion into the surrounding marsh and canals from the GIWW coupled with erosion caused by wave action from nearby boats, wind, and tides has caused the historical land loss within this area. Aerial photography since the late 1930's documents the conversion of approximately 2,700 acres of emergent marsh to open water within the proposed project area, or approximately 75% of the emergent marsh has converted to open water over the last 70 years within this proposed project area. The CWPPRA sponsored Black Bayou Hydrologic Restoration Project (CS-27) features addressed the saltwater intrusion problem, however the expansive open water area identified by this project continues to experience shoreline erosion and coalescence of smaller water bodies into one 2,700 acre pond. This expansion is threatening the integrity of the western levee boundary at this time. The CWPPRA sponsored Plowed Terrace Demonstration Project (CS-25), coupled with mitigation terraces within this area has shown the usefulness of terracing to reduce wave fetch, however more terraces are needed.

Goals:

- (1) Restore coastal marsh habitat, and
- (2) Reverse the conversion of wetlands to shallow open water in the project area.

Proposed Solutions:

Construct up to 261,000 linear feet of earthen terraces, oriented in such a way as to reduce wind generated wave fetch. In addition, the terraces would be planted with appropriate species of wetland vegetation to reestablish the plant productivity needed to rebuild the organic peat for marsh vertical accretion and expansion.

Preliminary Project Benefits:

At 261,000 LF; 5 foot crown, 1:5 side slopes, 3' out of water; $261,000 \text{ LF} * 35'' = 9,135,000$ square feet / $43,560 = 210$ acres initially constructed, and approximately 500 acres of emergent marsh surrounding the open water will be benefited indirectly. An average loss of 2,700 acres over 75 years is 36 acres per year. This project will stop the conversion of marsh to open water by providing the necessary protection to the remaining emergent marsh to wind induced waves. Thus, 720 additional acres of emergent marsh will be protected over the 20-year life of the project, or >75%. These terraces will maintain the western artificial levee boundary of this

3,200-acre area through the reduction of wave induced erosion. The Black Bayou Gas Field is immediately adjacent to the project area, and this project will re-establish and help stabilize the emergent marsh that adjoins this critical infrastructure. This project would compliment the results of the Black Bayou Hydrologic Restoration (CS-27) and Plowed Terrace Demonstration (CS-25), as CS-27 reduced saltwater intrusion and CS-25 demonstrated the usefulness of terraces in this area.

Identification of Potential Issues:

No known issues at this time.

Preliminary Construction Costs:

Estimated construction costs plus 25% contingency = \$5,875,000.

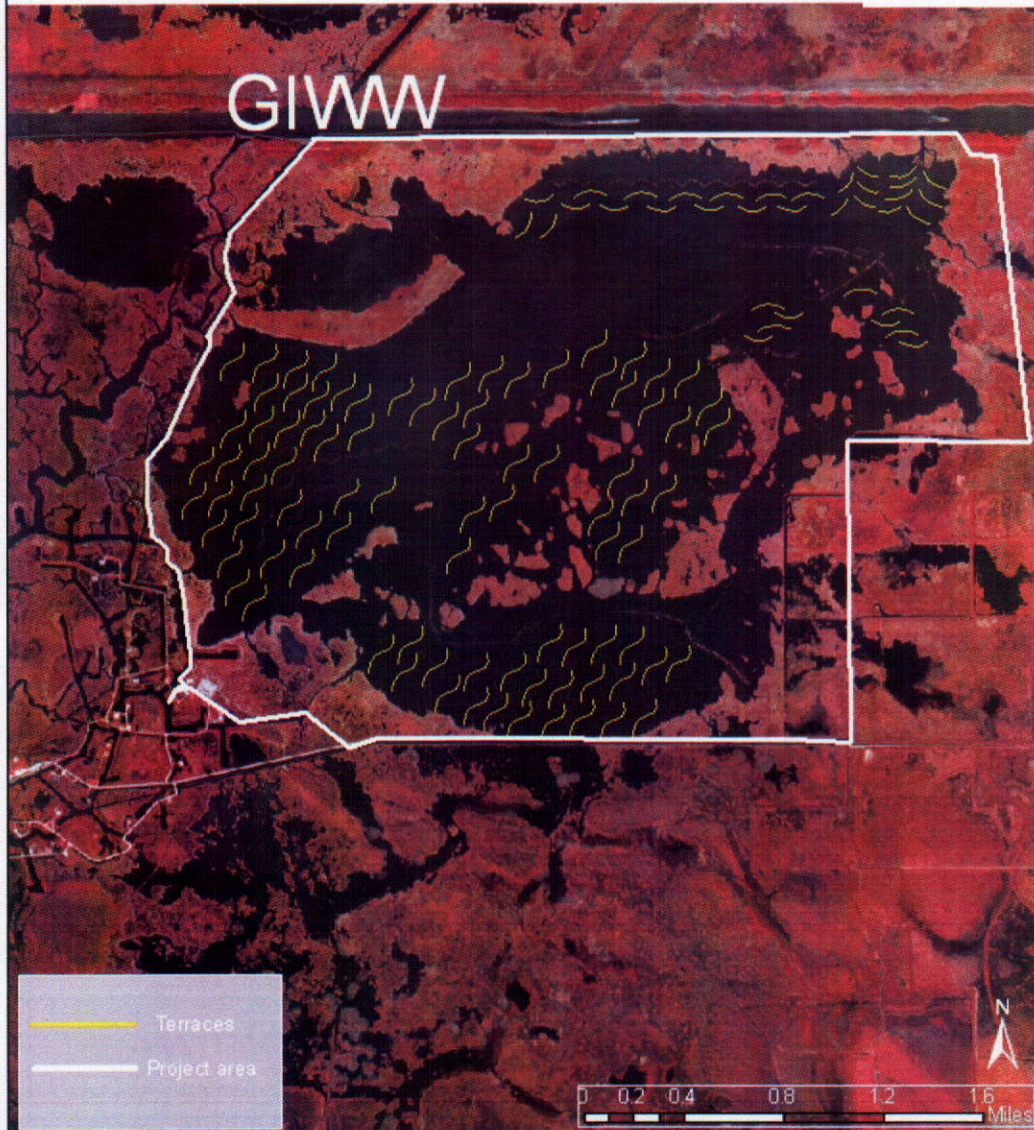
261,000 LF of terraces and 105,400 vegetative plugs.

Preparer of Fact Sheet:

John D. Foret. Ph.D., NOAA Fisheries Service, (337) 291-2107, john.foret@noaa.gov.

Black Bayou Terraces

Calcasieu and Cameron Parishes, LA
PPL 18 nominee



PPL 18 PROJECT NOMINEE FACT SHEET
2/19/2008

Project Name

Cameron-Creole Freshwater Introduction

Coast 2050 Strategy

Restore historic hydrologic and salinity conditions throughout Region 4 to protect wetlands from hydrologic modification. Maintain estuarine gradient to achieve diversity.

State Master Plan Strategy

Chenier Plain Freshwater and Sediment Management and Reallocation. This project would restore freshwater input at the upper end of the estuary to flow seaward and grade into an increasingly saline flow. With salinity gradient comes the gradation of fresh-intermediate-brackish-saline vegetation and associated variations in fish and wildlife habitat. *Provide coastal protection to the GIWW.*

Project Location

Region 4, Calcasieu/Sabine Basin, Cameron Parish, east of Calcasieu Lake at Gibbstown Bridge Highway 27.

Problem

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention associated with the Calcasieu Ship Channel and the GIWW. Between 1952 and 1974, this area is thought to have had some of the highest loss rates of any area in coastal Louisiana. Some of that loss is linked to natural disturbances such as Hurricane Audrey, Hurricane Carla, and the severe droughts of the early 1960's. However, because of man-made alterations to the hydrology those marshes were unable to adapt and repair themselves through natural processes. To reduce impacts associated with the Ship Channel, the Cameron-Creole Watershed Project was completed in 1974. That project has successfully reduced salinities and increased marsh productivity. Recently, Hurricane Rita was responsible for additional marsh loss in the Cameron-Creole area. It is unlikely that the area will recover from those losses without comprehensive restoration efforts. Repairs to the Cameron-Creole Watershed Project structures and levees are being completed, however, the project area remains disconnected from freshwater, sediments, and nutrients by the GIWW.

Proposed Project Features

The proposed project concepts were conceived from discussions at the Cameron-Creole committee meeting and to facilitate sustainability in the area. It consists of approximately 10 foot concrete box culverts in the GIWW at the intersection of the Hebert Precht Canal, Montesano Canal, and Highway 27 (Gibbstown Bridge). Those structures would be flap-gated to allow freshwater out of the GIWW into the Cameron-Creole marshes and to prevent saltwater intrusion. Additionally, approximately 65,000 linear feet of terracing and 8,000 linear feet of shoreline protection would be provided.

Preliminary Project Benefits

The proposed freshwater introduction project would provide increased sediment and nutrients as well as restore/improve hydrologic conditions in the project area. It would compliment the existing watershed plan by restoring the natural flow of freshwater through the system and allow the existing structures to remain open for a longer period time. The shoreline protection component is critical to prevent saltwater from entering the GIWW and circulating saltwater throughout the watershed. In addition, terracing would create approximately 12 acres of emergent marsh, and improve SAV habitat.

Preliminary Construction Costs

\$10 to 12 million





Preparer of Fact Sheet

Troy Mallach, NRCS, (337) 291-3064, troy.mallach@la.usda.gov

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Legend

-  Freshwater_Introduction
-  Drainage
-  Shoreline_Protection
-  Terraces_Field



Cameron-Creole Freshwater Introduction
 PPL 18
 Cameron Parish, Louisiana



PPL 18 PROJECT NOMINEE FACT SHEET

2/19/2008

Project Name

First Bayou Freshwater Introduction

Coast 2050 Strategy

Restore historic hydrologic and salinity conditions throughout Region 4 to protect wetlands from hydrologic modification. This project would improve drainage and reestablish the hydrologic conditions disrupted by Louisiana Highway 27.

State Master Plan Strategy

Restore more natural hydrology to the Chenier Plain. Provide coastal protection to evacuation route LA Highway 27. Maintain estuarine gradient to achieve diversity.

Project Location

Region 4, Calcasieu/Sabine Basin, Cameron Parish, approximately 3 miles north of Holly Beach bisected by Louisiana Highway 27.

Problem

Construction of the Calcasieu Ship Channel appears to be the most environmentally damaging event to impact marshes within the area. The Ship Channel has resulted in increased salinity and marsh loss by providing an avenue for the rapid movement of high-salinity water into the Mud Lake area marshes. The East Mud Lake Marsh Management (CS-20) project was designed to stabilize salinity and water levels. However, input of freshwater from all directions has been cut off by the construction of highways and their associated levees. The project area remains disconnected from freshwater and nutrient input from the canal along Highway 27. Additionally, because of the limited drainage avenues, there is prolonged flooding in the marshes to the west of the highway.

Proposed Project Features

The project will reestablish the historical drainage pattern associated with First and Second Bayous by reconnecting them to Mud Lake. A plug will be installed to prevent water from being routed directly to the Calcasieu Ship Channel. Approximately 1500 feet of First Bayou would be dredged to reconnect it to an existing structure within CS-20. That reconnection would allow the existing structure to function as originally designed. Approximately 2500 feet of Second Bayou would be dredged and an additional structure would be installed to reconnect it to Mud Lake. In addition, approximately 5,000 feet of shoreline protection would be constructed along the west side of Mud Lake to protect Highway 27. Vegetative plantings will also be performed on the peninsula of Mud Lake where Hurricane Rita turned a large area to open water.

Preliminary Project Benefits

The proposed freshwater introduction project would provide increased freshwater and nutrients to areas east of Highway 27 and provide increased marsh productivity in areas west of Highway 27 by decreasing inundation. The shoreline protection will prevent the shoreline from eroding to Highway 27, which is an important Hurricane Evacuation Route.

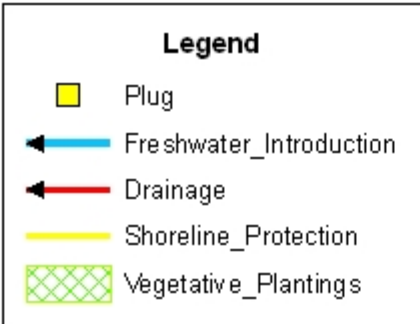
Preliminary Construction Costs

\$3 to 5 million

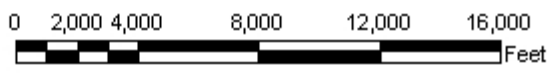
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First Bayou Freshwater Introduction
PPL 18
Cameron Parish, Louisiana



PPL 18 PROJECT NOMINEE FACT SHEET

2/19/2008

Project Name

Gum Cove Terracing

Coast 2050 Strategy

Use of sediment for wetland creation.

State Master Plan Strategy

Construct terraces for marsh restoration.

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish, West Black Lake Mapping Unit, area east of Gum Cove and south of GIWW.

Problem

The most significant environmental problem affecting the marshes in this area is deterioration and conversion to open water. Between 1952 and 1974 this area experienced an 81 percent marsh loss. Much of that loss occurred because the construction of the Calcasieu Ship Channel greatly increased the efficiency of water exchange through Calcasieu Pass. Freshwater retention was consequently reduced and saline water was able to enter in greater quantities and penetrate further north. The proposed project area is bordered by a north/south levee that provides protection from water and salinity level fluctuations. However, because the organic soils have been lost from erosion, it is unlikely that emergent marsh will reestablish in the open water areas. SAV habitat is also limited by the energy associated with the large open water fetch.

Proposed Project Features

The project will construct approximately 165,000 linear feet of terraces with approximately 300 foot spacing.

Preliminary Project Benefits

The proposed terracing project will reestablish emergent marsh and create excellent SAV habitat by reducing wave energy associated with fetch.

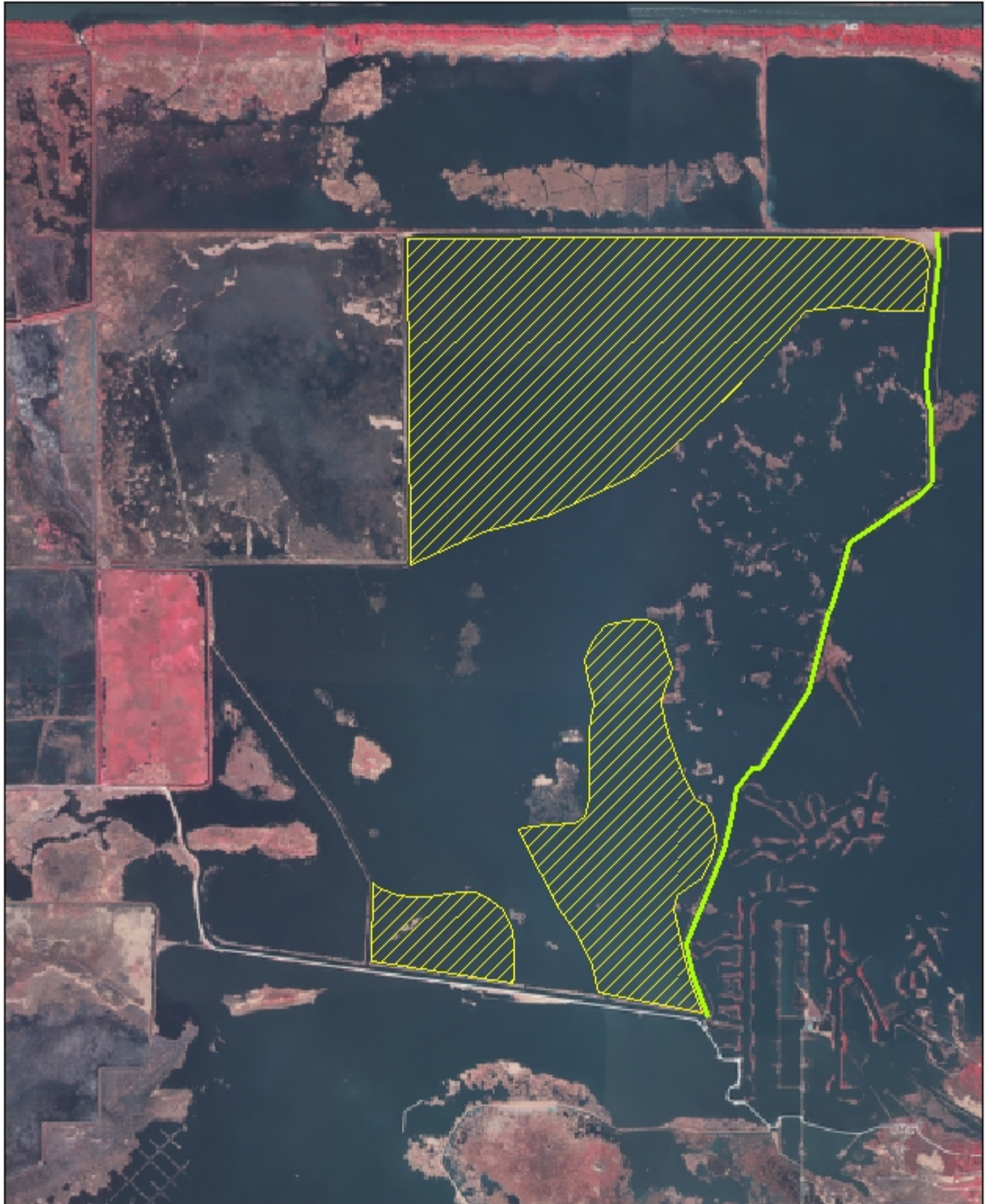
Preliminary Construction Costs

\$3 million

Preparer of Fact Sheet

Troy Mallach, NRCS, (337) 291-3064, troy.mallach@la.usda.gov

Curt Marcantel, landowner

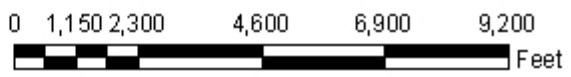


Legend

- Levee_Caps
- Terrace Field



Gum Cove Terracing
PPL 18
Calcasieu and Cameron Parishes, Louisiana



PPL 18 PROJECT NOMINEE FACT SHEET
2/19/2008

Project Name

Kelso Bayou Marsh Restoration

Coast 2050 Strategy

Restore historic hydrologic and salinity conditions throughout Region 4 to protect wetlands from hydrologic modification.

State Master Plan Strategy

Restore natural hydrology to the Chenier Plain. Reduce saltwater intrusion to re-establish a salinity gradient. A salinity gradient will create a gradation of fresh-intermediate-brackish-saline vegetation and associated variations in fish and wildlife habitat.

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish, West Black Lake Mapping Unit, area east of Gum Cove and south of GIWW.

Problem

The most significant environmental problem affecting the marshes in this area is deterioration and conversion to open water. Between 1952 and 1974 this area experienced an 81 percent marsh loss. Much of that loss occurred because the construction of the Calcasieu Ship Channel greatly increased the efficiency of water exchange through Calcasieu Pass. Freshwater retention was consequently reduced and saline water was able to enter in greater quantities and penetrate further north. The proposed project will be designed to reduce salt water intrusion by decreasing the amount of salt water entering the project area and disrupting the artificial circulation of that water. SAV habitat is also limited by the tidal energy associated with the large amount of water exchange.

Proposed Project Features

Water control structures at Alkali Ditch and Kelso Bayou

Preliminary Project Benefits

The project proposes to significantly increase marsh and SAV productivity by decreasing the amount of saltwater entering the project area from Kelso Bayou and Alkali Ditch. Currently, Kelso Bayou is approximately 160 feet wide and 10 feet deep and the Alkali Ditch is approximately 210 feet wide and 10 feet deep. Therefore, the cross sectional area could be reduced approximately 80% at those locations with a structure that is 60 feet wide and 6 feet deep. A reduction in salinity would be the foundation for existing and future restoration efforts and could be predicted utilizing existing modeling efforts.

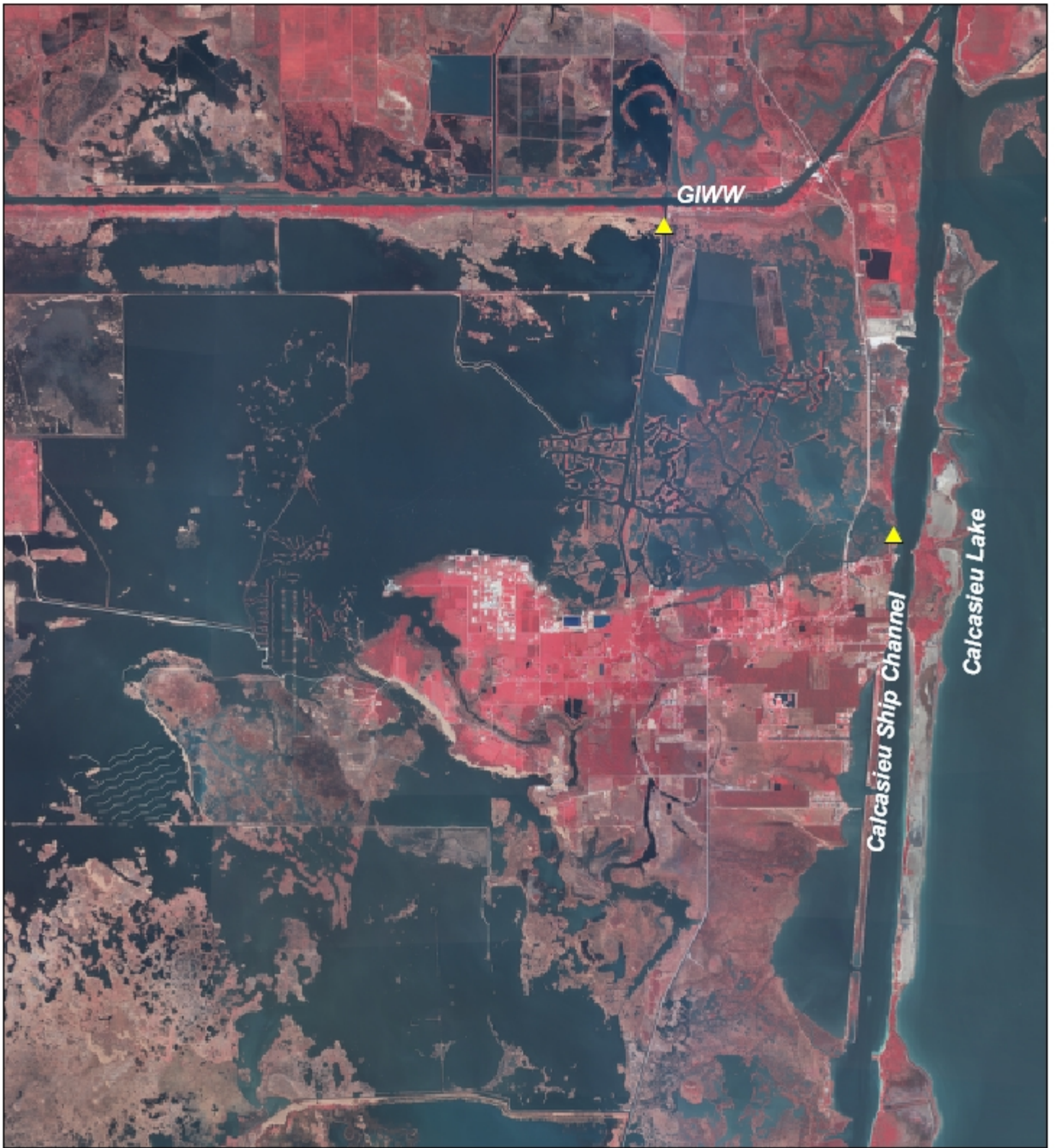
Preliminary Construction Costs:

\$2 Million


Preparers of Fact Sheet

Troy Mallach, NRCS

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Legend

 Weir_w_Boat_Bay



Kelso Bayou Marsh Restoration
PPL 18
Cameron Parish, Louisiana



PPL18 PROJECT NOMINEE FINAL FACT SHEET

February 19, 2008

East Cove Marsh Creation Project**Coast 2050 Strategy:**

Regional Strategy: Use dedicated dredging or beneficial use of sediment for wetland creation or protection.

Project Location:

Region 4, Calcasieu-Sabine Basin, Cameron Parish, 1.5 miles north of Cameron, in the southwestern portion of the Cameron-Creole Watershed on the Cameron Prairie NWR.

Problem:

Former project area brackish marshes have converted to open water due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The Cameron-Creole Watershed Hydrologic Restoration project was implemented in 1989 to relieve the saltwater intrusion problem but has not succeeded in revegetating the area. Hurricane Rita in 2005 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. Sediment and water level drawdowns are needed to restore shallow open water areas to marsh.

Goals

The project purpose is to recreate approximately 604 acres of marsh via beneficial use of maintenance dredged material from the Calcasieu Ship Channel.

Proposed Solution:

Place material beneficially from normal maintenance dredging of the Lower Calcasieu River from Mile Points 5 to 12 in two disposal areas in the southwest portion of the Cameron-Creole Watershed. The Corps of Engineers, New Orleans District dredges approximately 1.88 million cubic yards of maintenance material every 2 years from this reach. The project would transport approximately 3.76 million cubic yards of dredged material to two open water areas, totaling 604 acres, to restore a net 509 acres of marsh in two cycles [Cycle 1 (East) equals 228 net acres; Cycle 2 (West) equals 281 net acres]. Following construction, retention levees would be degraded, man-made bayous (trenasses) constructed, and a 50-foot-wide perimeter of smooth cordgrass plantings installed for estuarine fisheries access and to achieve a functional marsh.

Project Benefits:

The project would benefit 604 acres of brackish and saline marsh and open water. Approximately 509 net acres of marsh would be created over the 20-year project life.

Project Costs:

The total project construction cost estimate is \$15 to 16 M. Fully funded cost is \$18.4 M.

Preparers of Fact Sheet:

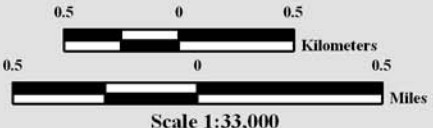
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East Cove Marsh Creation (PPL17 Candidate)



-  Earthen Retention Dike *
 -  Earthen Weir *
 -  Marsh Creation *
 -  Project Boundary *
- * denotes proposed features



Produced by:
 U.S. Department of the Interior
 U.S. Geological Survey
 National Wetlands Research Center
 Coastal Restoration Field Station
 Baton Rouge, La

Image Source:
 2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0232
 Map Date: July 05, 2007

PPL18 PROJECT NOMINEE FINAL FACT SHEET

February 19, 2008

Cameron Prairie Grand Bayou Marsh Creation Project**Coast 2050 Strategy:**

Regional Strategy: Use dedicated dredging or beneficial use of sediment for wetland creation or protection.

Project Location:

Region 4, Calcasieu-Sabine Basin, Cameron Parish, 6 miles northeast from Cameron, LA, in the western portion of the Cameron-Creole Watershed on the Cameron Prairie NWR north of Grand Bayou.

Problem:

14,390 acres (32%) of Cameron-Creole Watershed marshes were lost to open water from 1932 to 1990 at an average loss rate of 248 ac/year (0.55%/year), due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The CCWP was implemented in 1989 to relieve the saltwater intrusion problem and re-vegetate marshes. With the CCWP in place and operating, the loss rate was reduced to only 37 ac/yr (0.12%/yr). However, Hurricane Rita in 2005 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. Sediment introduction, water level drawdowns, and freshwater introduction from the north are needed to restore shallow open water areas to marsh within the watershed.

Goals

The project purpose is to recreate approximately 515 acres of marsh via dredged material from Calcasieu Lake.

Proposed Solution:

Place 3.2 million cubic yards of material dredged from a Calcasieu Lake borrow site (2,400 ft X 2,400 ft X 15 feet deep) located approximately 2,000 feet west of Grand Bayou into two disposal areas in the western portion of the Cameron-Creole Watershed to restore 515 acres of brackish marsh. Following construction, retention levees would be degraded, man-made bayous (trenasses) constructed, and a 50-foot-wide perimeter of smooth cordgrass plantings installed for estuarine fisheries access and to achieve a functional marsh.

Project Benefits:

The project would benefit 515 acres of brackish and saline marsh and open water.

Project Costs:

The total project construction cost estimate is \$16 to \$20 M.

Preparers of Fact Sheet:

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Wayne Syron, U. S. Fish and Wildlife Service, (337) 774-5923, Wayne_Syron@fws.gov

Cameron Prairie NWR Grand Bayou Marsh Creation Project PPL 18 Project Nominee



Calcasieu Lake

Calcasieu Ship Channel

Borrow Area

Grand Bayou

Marsh Creation Areas

North Prong Grand Bayou

Cameron Prairie NWR

Cameron

PPL 18 Regional Planning Team (RPT) Meeting

Region: R4-CS-08

Basin:

Project Name: BLACK LAKE MARSH CREATION
WITH MINIDREDGE.

Project Description:

Project Contact Information (Phone Number and Email):

KIRK MARCHENTELL

Region 4 - MERMENTAU BASIN

Region 4-RPT
PPL18 PROJECT NOMINEE FACT SHEET
February, 2008

Project Name:

Rockefeller Gulf of Mexico Shoreline Stabilization, Joseph's Harbor East, ME-25.

Coast 2050 Strategy:

Regional: Dedicated dredging or beneficial use of sediment for wetland creation or protection (6) and Stabilize Gulf of Mexico Shoreline from Old Mermentau River to Dewitt Canal (16). Coast-wide Common: Maintenance of Gulf, Bay and Lake shoreline Integrity, and Maintain, Protect or Restore Ridge Functions.

Project Location:

Region 4, Mermentau Basin, Cameron/Vermilion Parish, LA. Along the Gulf shoreline from eastern bank of Joseph's Harbor (Rockefeller Refuge) eastward 10,000 feet.

Problem:

The project will be deigned to address Gulf shoreline retreat averaging 35' per year (Byrnes, McBride et al., 1995) with subsequent direct loss of saline emergent marsh.

Goal:

1) Reduce Gulf shoreline retreat and direct marsh loss at areas of need identified from Rockefeller Refuge east to Region 4 boundary, 2) protect saline marsh habitat, 3) Enhance fish and wildlife habitat.

Proposed Solution:

The project would entail construction of a near-shore break-waters along the Gulf of Mexico shoreline. The break-water would extend from the eastern bank of Joseph's Harbor canal eastward for 10,000 feet. The proposed structure would be tied into the present shoreline at the point of beginning and ending. It would be designed to attenuate shoreline retreat along this stretch of Gulf shoreline, as well as promote shallowing, settling out, and natural vegetative colonization of over-wash material landward of the proposed structure. The resultant design would be placed offshore along the -5' contour. The crest height of the proposed structure would be 8.5 feet above the Gulf floor (i.e., +3.5 ft above average water level), with an 18 foot crown and 1:2 slope on both sides. The proposed structure would consist of neutral buoyancy material encapsulated by 2,200 lb. class stone. The proposed design would include openings every 1000' to facilitate material and organism linkages. Excavation material for construction access would be placed on the landward side of the structures.

Preliminary Project Benefits:

The project is expected to influence approximately 125 acres directly (120 protected, 5 created), and a portion of 4,900 acres indirectly (Rockefeller Refuge Unit 5). This project is anticipated to benefit 125 acres (10K ln ft X 35 ft/yr X 20 yrs) X 0.75. The reduction efficiency was estimated by using 90% of the average wave transmission rates listed in the Rockefeller Refuge gulf Shoreline Stabilization Feasibility Study produced by Shiner Mosely and Associates (Table 6, page 4-19, methodology of Seabrook and Hall, 1998). Estimates for excavation are as follows; at the -5' contour, an additional 4' of material will be moved at a width of 80', for the 10,000 linear feet of the project or 3,200,000 cubic yards will be placed behind the rock structure.

The project would protect and maintain chenier and beach function.

The project would have a net positive impact on non-critical infrastructure. This project would protect five existing pipelines that come ashore within the project area from continued erosion of the cover, which when uncovered, become a public and environmental hazard. This project would also protect properly plugged, land-based wellheads from erosion of the cover, thus becoming a public and environmental hazard.

Identification of Potential Issues:

There are potential issues with pipelines. There are pipelines in the area

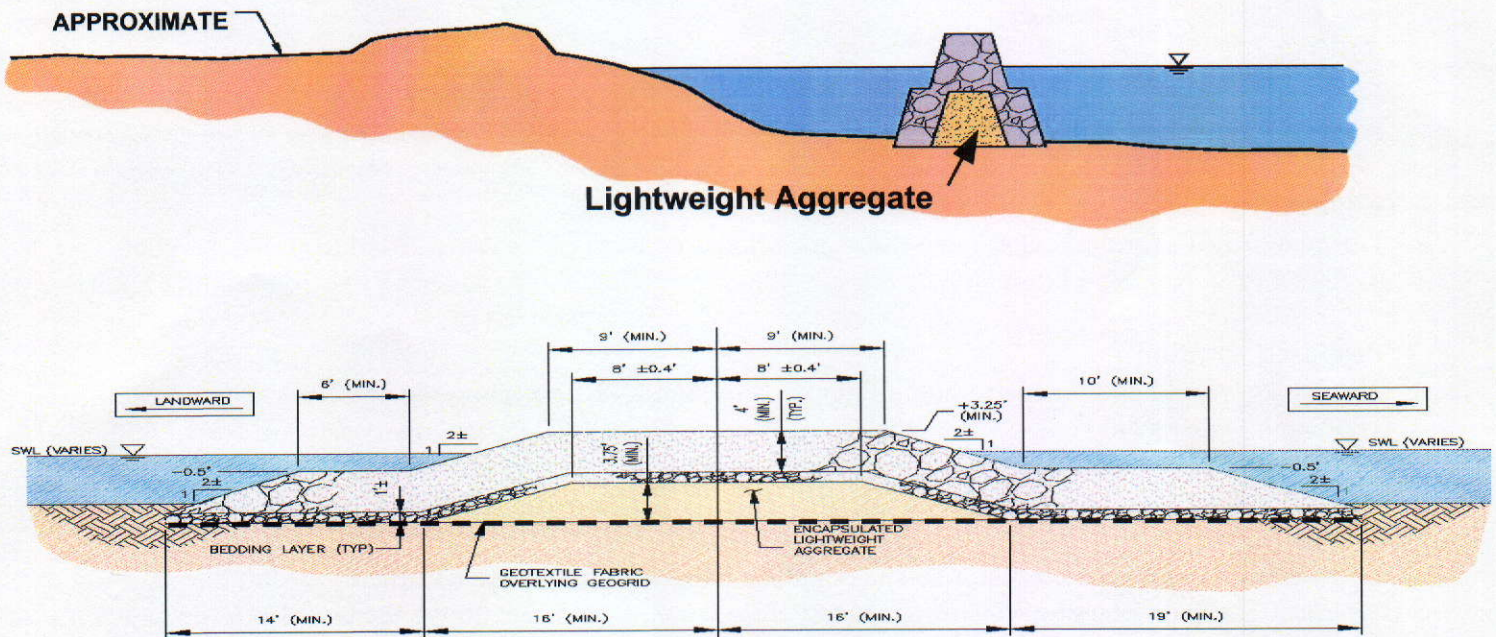
Preliminary Construction Costs:

The preliminary fully funded cost is \$9-11 million.

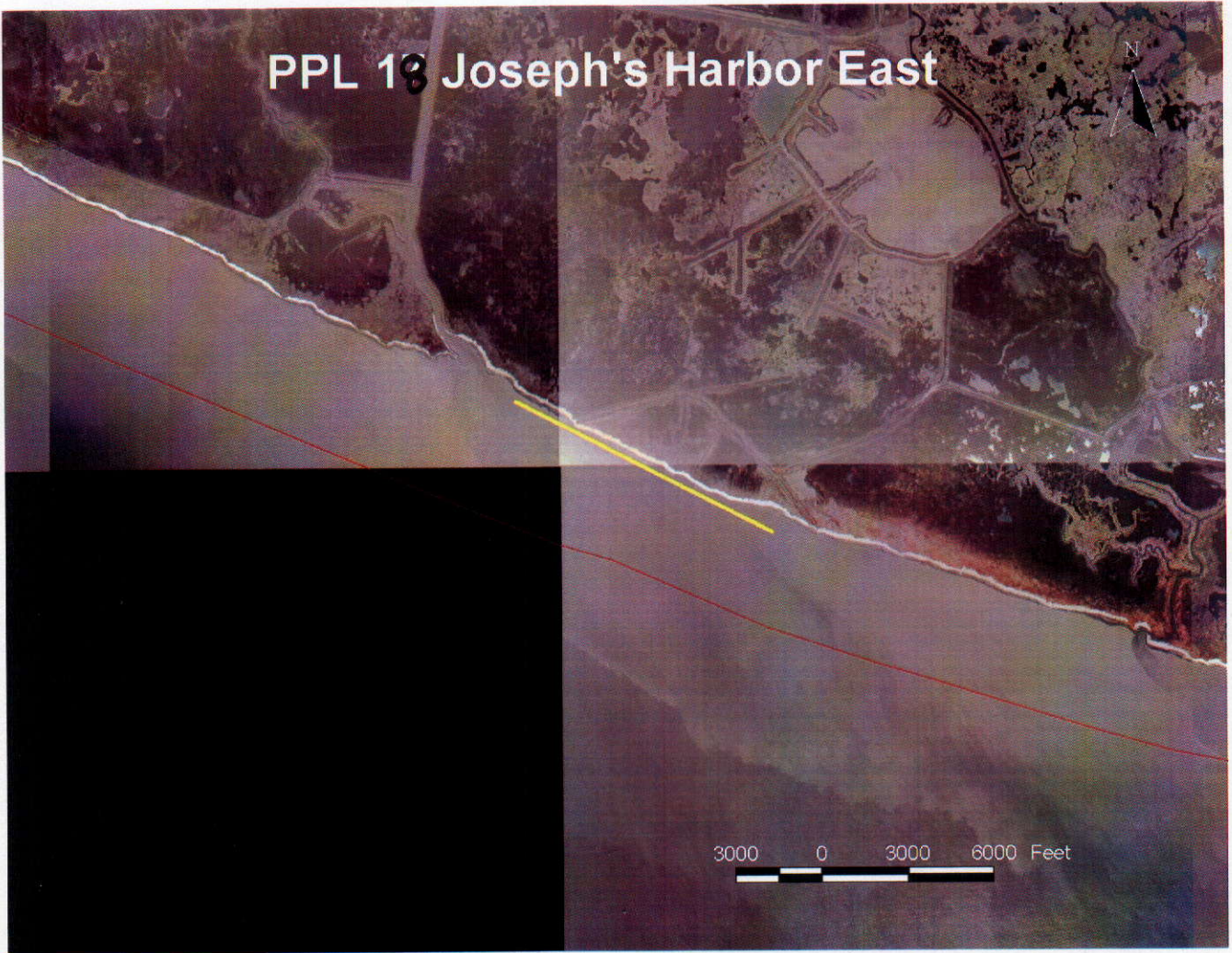
Rock Breakwater: \$978 per linear foot * 10,300 linear feet = \$10,073,400

Preparer of Fact Sheet:

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PPL 18 Joseph's Harbor East



3000 0 3000 6000 Feet

Region 4-RPT
PPL18 PROJECT NOMINEE FACT SHEET
February 19, 2008

Project Name:

Terracing at Dyson's Ditch, ME-25

Coast 2050 Strategy:

Restore and Sustain Wetlands (*Regional Ecosystem Strategy*)

Terracing (*Coastwide Common Strategy*)

Vegetative Plantings (*Coastwide Common Strategy*)

Project Location:

Region 4, Mermentau Basin, Vermilion Parish, between the Gulf of Mexico and Pecan Island.

Problem:

The marsh is broken and subsided as a result of saltwater intrusion and drainage and issues that have since been remedied.

Goals:

- 1) Restore coastal marsh habitat, and
- 2) To reduce wave fetch and increase marsh through the construction of terraces. This can decrease turbidity, decrease erosion, and increase submersed aquatics, and marsh.

Proposed Solutions:

Project would include construction of earthen terraces in open water areas throughout the project area for a minimum of 200,000 linear ft, with the exception of two areas that were previously small lakes that will remain open water. The terraces would consist of dredging bottom material deposited in 200-400 ft long berms with 5 ft crowns, 20 ft bases and a height of 2.5 ft above MSL. Terraces would be non-linear oriented in a way to reduce wind generated wave fetch and planted with species appropriate to rebuild the organic peat for marsh vertical accretion and expansion.

Preliminary Project Benefits:

At 200,000 LF; 5 foot crown, 1:5 side slopes, 3' out of water; $200,000 \text{ LF} * 35' = 7,000,000$ square feet / $43,560 = 161$ acres initially constructed, and approximately 500 acres of emergent marsh surrounding the open water will be benefited indirectly. This project would compliment the results of the Pecan Island Terracing Project (ME-18).

Identification of Potential Issues:

No known issues at this time.

Preliminary Construction Costs:

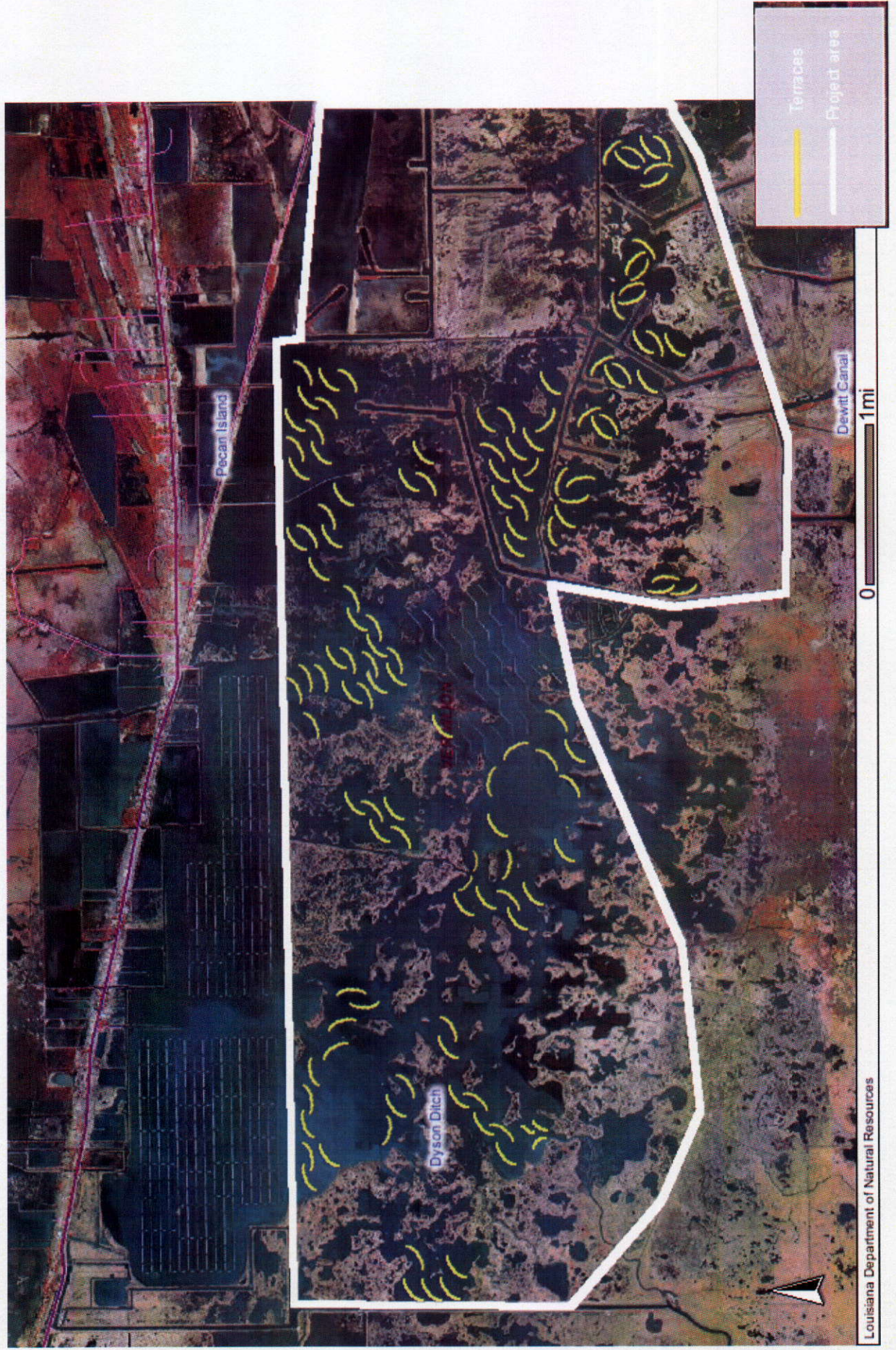
Estimated construction costs plus 25% contingency = \$4,100,000.

200,000 LF of terraces and 81,000 vegetative plugs

Preparer(s) of Fact Sheet:

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Terracing at Dyson's Ditch (ME-25)
Vermilion Parish, LA
PPL 18 nominee



PPL 18 PROJECT NOMINEE FACT SHEET

2/19/2008

Project Name

Freshwater Bayou Marsh Creation

Coast 2050 Strategy

Marsh Creation by Sediment Delivery or Dedicated Dredging.

State Master Plan Strategy

Maintain or establish natural landscape features and hydrologic processes that are critical to sustainable ecosystem structure and function, including dissipation of storm energy.

Project Location

Region 4, Mermentau Basin, Vermilion Parish, Big Marsh Mapping Unit, area west of Freshwater Bayou and north of the Freshwater Bayou lock.

Problem

This area was damaged by Hurricane Rita. Currently, Freshwater Bayou threatens to breach into the large interior open water and establish a hydrologic connection that previously did not exist. This would exacerbate the environmental problems affecting marshes in this area. Interior marsh loss will likely increase without construction of the proposed project.

Proposed Project Features

Beneficially use dredge material and/or dedicated dredge material to rebuild approximately 574 acres of marsh that was converted to open water by Hurricane Rita. Approximately 640,000 yds³ of material is dredged from Freshwater Bayou (lock to the Gulf) every three years. The proposed project would beneficially use that material or material identified from other sources to create marsh in two phases. Phase 1 would include approximately 176 acres of fragmented marsh that is in immediate need of repair. Phase 2 would include creation and marsh nourishment of approximately 398 acres of fragmented marsh and shallow open water. Mobilization and demobilization costs may be conserved depending on the location and availability of source material identified for each phase. Contingency areas have been identified for flexibility based on unforeseen circumstances.

Preliminary Project Benefits

The proposed project would create/nourish approximately 574 acres or more of interior marsh. That marsh would restore and maintain a wetland buffer between the open water of the Mermentau Basin and Freshwater Bayou.

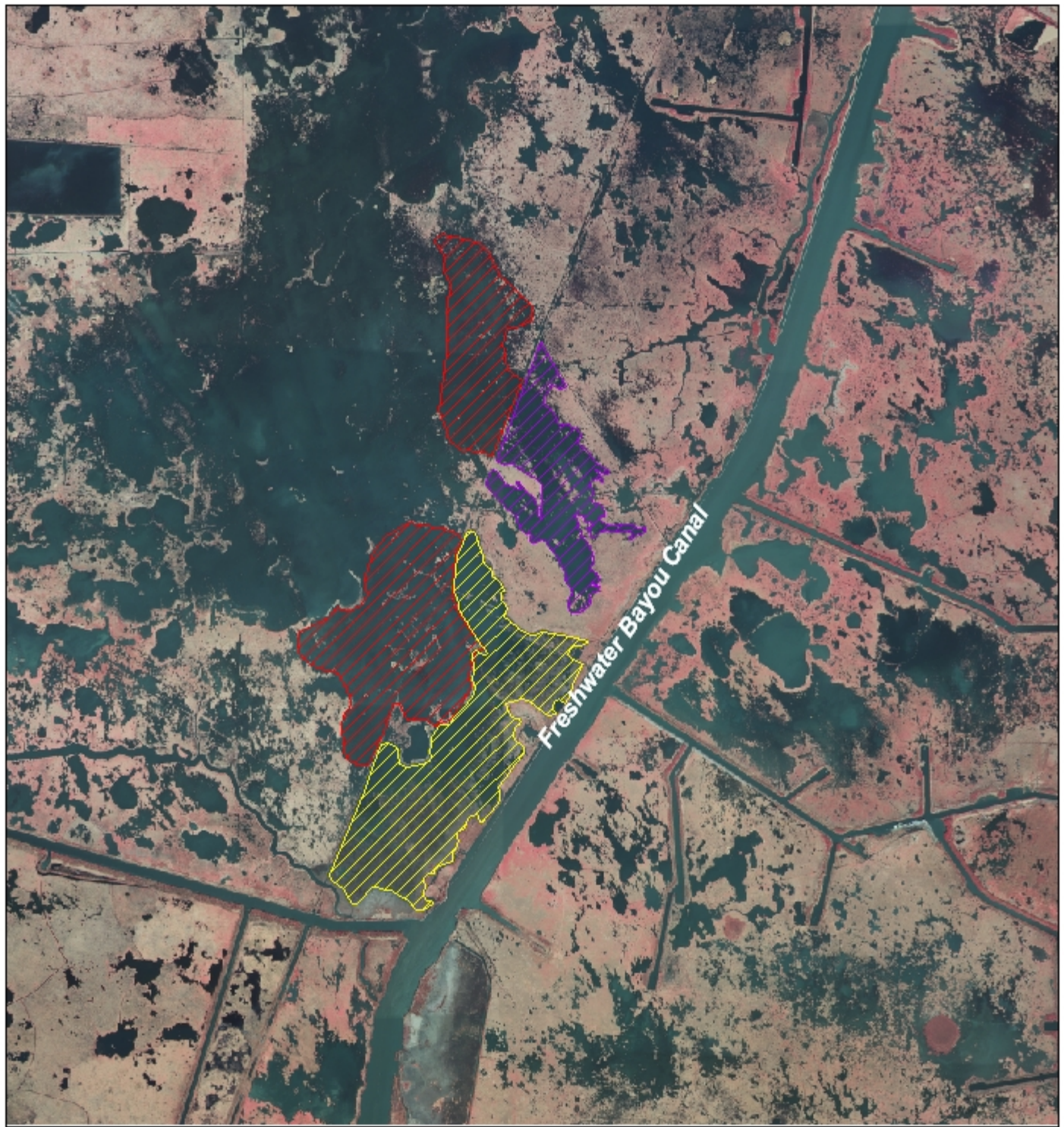
Preliminary Construction Costs

\$7.5 million (using \$4/cubic yard /should be cheaper with scheduled maintenance dredging).




Preparer of Fact Sheet

Troy Mallach, NRCS, (337) 291-3064, troy.mallach@la.usda.gov

Judge Edwards, Vermilion Corporation, vermilioncorporation@connections-lct.com



Legend

-  Marsh Creation/Nourishment Phase 1
-  Marsh Creation/Nourishment Phase 2
-  Marsh Creation/Nourishment Contingency Area

Freshwater Bayou MC/Nourishment
PPL 18
Vermilion Parish, Louisiana



PPL 18 PROJECT NOMINEE FACT SHEET

2/19/2008

Project Name

Lower Mud Lake Sediment Trapping

Coast 2050 Strategy

Use of sediment for wetland creation.

State Master Plan Strategy

Encourage the retention of inflowing sediment

Project Location

Region 4, Mermentau Basin, Cameron Parish, Lower Mud Lake Mapping Unit, area just northwest of the Mermentau Ship Channel.

Problem

The large area of fetch and associated wave energies prevent sediments from the Mermentau River from being deposited. Therefore, much of the sediment is being exported out of the Mermentau Ship Channel. SAV habitat is also limited by the sediment load and energy associated with the large open water fetch.

Proposed Project Features

The project would construct sediment trapping terraces similar to those used at Little Vermilion Bay (TV-12) and the Jaws (TV-15). Those terraces would dissipate wave energy and allow sediment to drop out of the water column and increase accretion, which would permit emergent vegetation to establish. Distributaries would be dredged to direct sediments to the project and distribute that sediment throughout the project area.

Preliminary Project Benefits

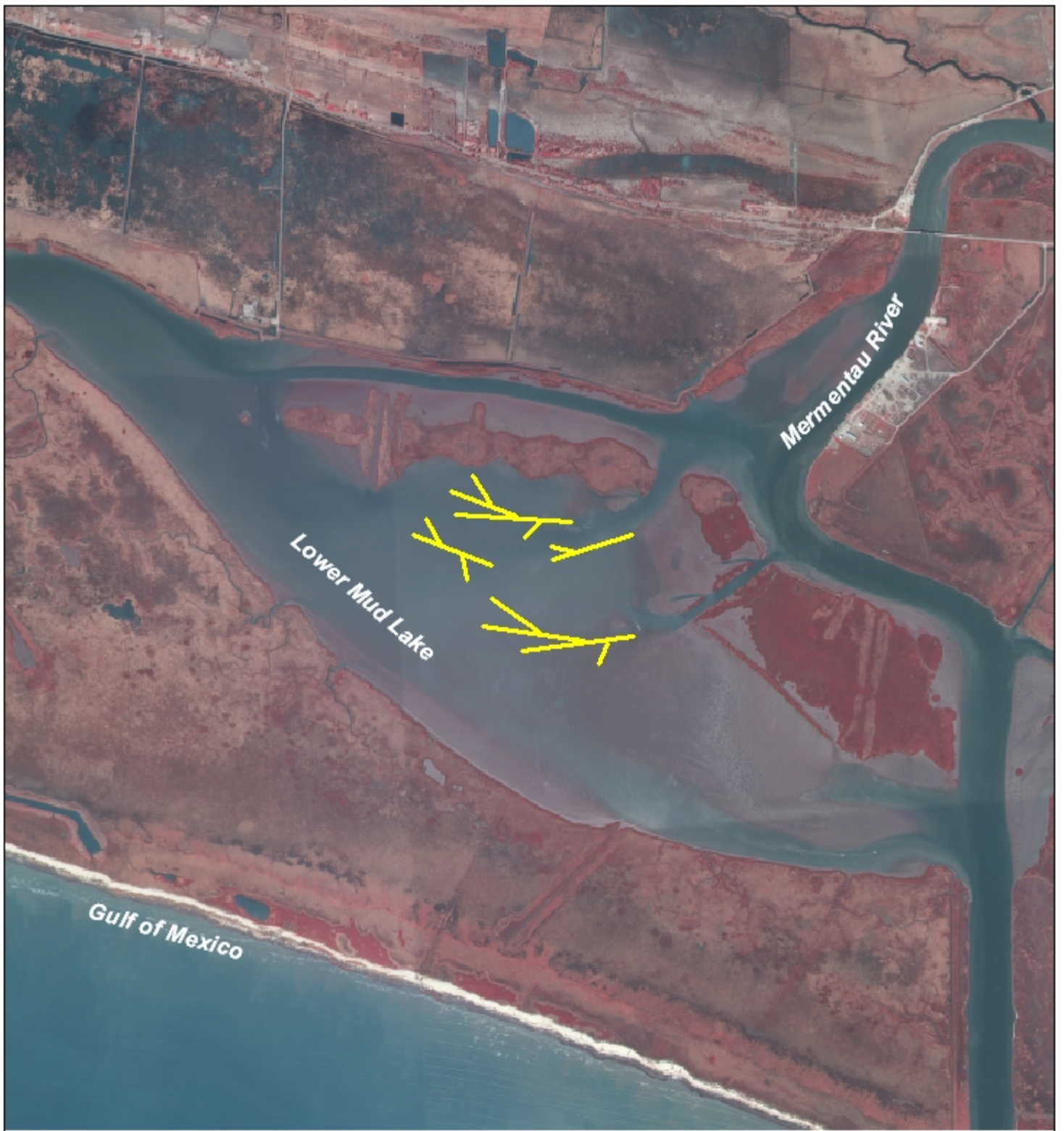
The proposed terracing project will establish emergent marsh and maximize sedimentation within the project area.

Preliminary Construction Costs

\$1 to 3 million

Preparer of Fact Sheet

Troy Mallach, NRCS, (337) 291-3064, troy.mallach@la.usda.gov



Legend

— Terraces



Lower Mud Lake Sediment Trapping
PPL 18
Cameron Parish, Louisiana

PPL 18 Regional Planning Team (RPT) Meeting

Region: K4-ME-~~04~~ 05

Basin:

Project Name: Northeast White Lake Beach
Restoration / Shoreline Protection

Project Description:

Project Contact Information (Phone Number and Email):

Charles Broussard