



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
Restoration Center  
5304 Flanders Drive, Suite B  
Baton Rouge, LA 70808

June 20, 2018

Kristin Sanders  
Deputy State Historic Preservation Officer  
Louisiana Office of Cultural Development  
Capitol Annex Building  
1051 North Third Street  
Baton Rouge, LA 70802

Dear Ms. Sanders:

The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) is reviewing the Bayou DeCade Marsh Creation and Nourishment Project (TE-138). The TE-138 marsh creation area is located west Theriot, LA in Terrebonne Parish and is being funded under the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA).

Our proposed project would use dredged material from Lake DeCade to create and or nourish approximately 504 acres of intermediate marsh adjacent to Lake DeCade and restore 11,726 linear feet of ridge habitat along the northern bank of Bayou DeCade. In accordance with the National Environmental Protection Act review of cultural and historical resources, and section 106 of the National Historic Preservation Act of 1966, we request concurrence with our determination of effect.

The online database identified two Areas of Potential Effects (APE). One APE is located near the access dredge corridor (16TR40) and the other APE is located in the central northern portion of the marsh creation area (16TR45) noted on the attached figure. The dredge pipeline will be placed at the bottom of Lake DeCade not affecting the Rangia shell midden found in 1964 (16TR40) on the bank of Bayou DeCade during a site investigation. The other APE (16TR45) is located on the ridge feature of the marsh creation area where dredged material will be placed on top of the area not affecting the Rangia shell midden also found in 1964. We have determined that the proposed project is unlikely to disturb any cultural resources.

Please let me know if you have any questions or need additional information (225-954-6654, [jennifer.smith@noaa.gov](mailto:jennifer.smith@noaa.gov)).

Sincerely,

SMITHJENNI  
FER.SPENCER  
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Digitally signed by  
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Date: 2018.06.20  
12:49:16 -05'00'

Jennifer Smith  
Project Manager



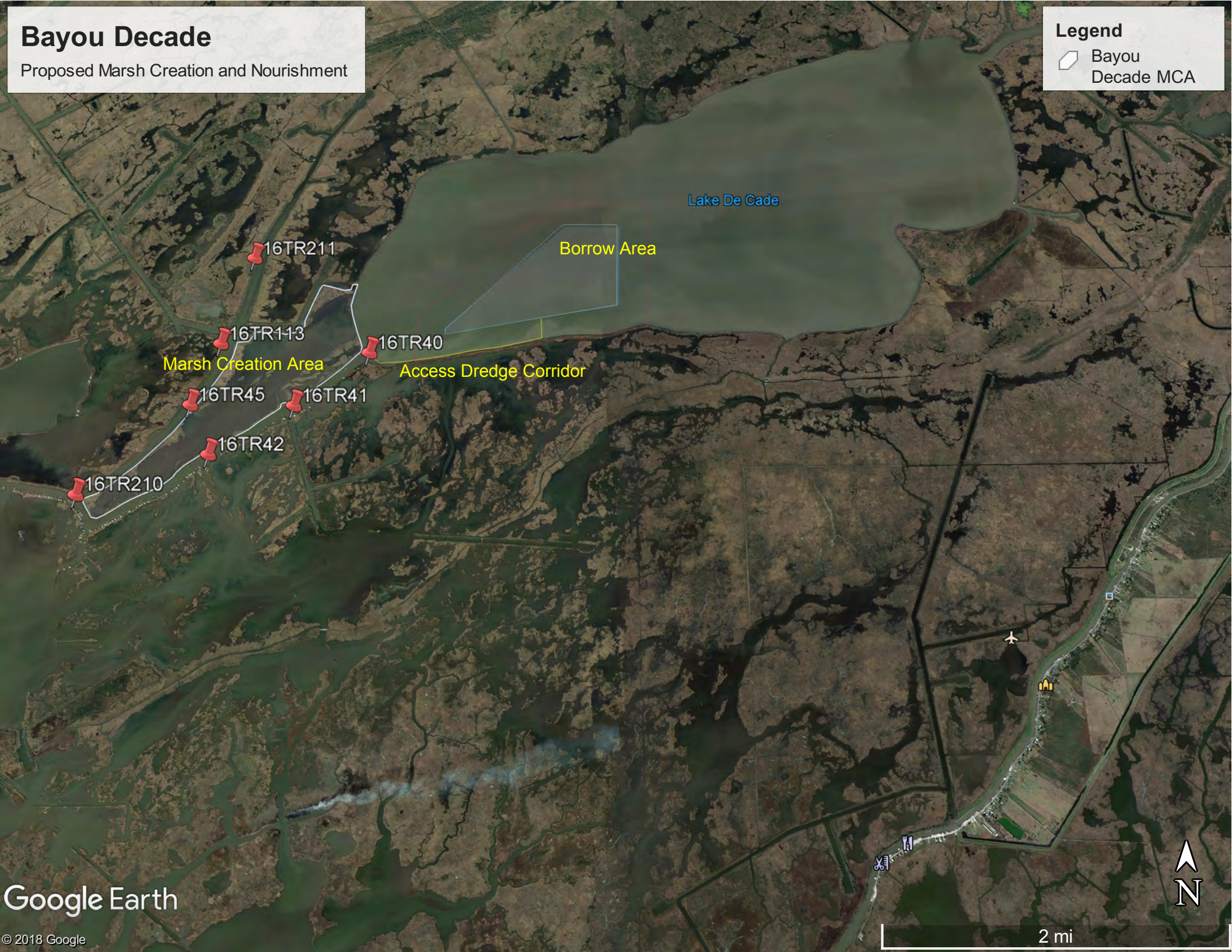


# Bayou Decade

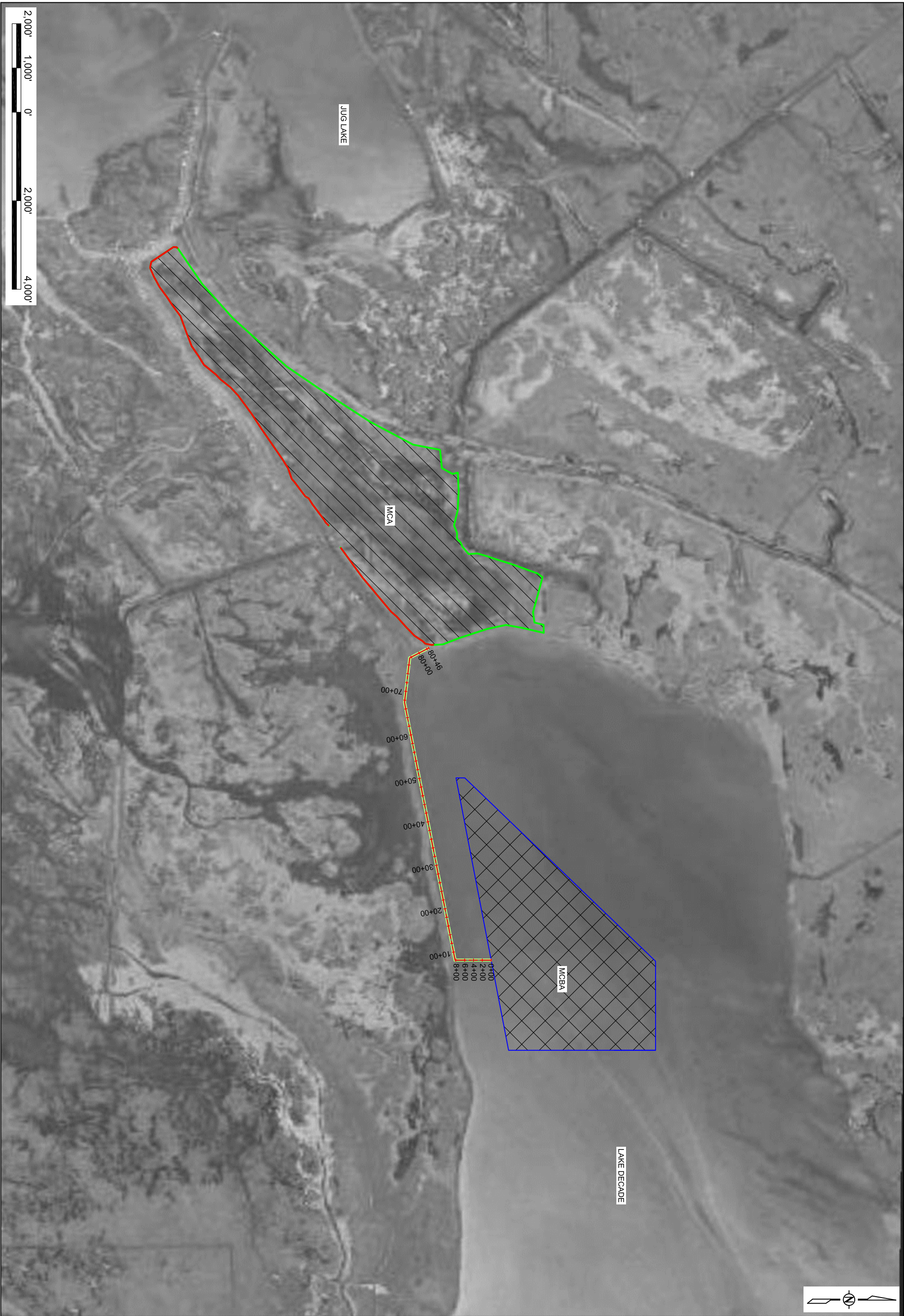
Proposed Marsh Creation and Nourishment

Legend

Bayou Decade MCA







SHEET 3 OF ??	DATE: JUNE 2018	BAYOU DECADE MARSH CREATION AND RIDGE RESTORATION PROJECT		PROJECT LAYOUT		COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802							
		STATE PROJECT NUMBER: TE-0138		DESIGNED BY: TRAVIS BYLAND, P.E.									
		DRAWN BY: SHANE FAUST		APPROVED BY:									
						REV.	DATE	DESCRIPTION		BY			





# Bayou De Cade Ridge and Marsh Creation (TE-138)

## Project Status

**Approved Date:** 2017      **Project Area:** 517 acres  
**Approved Funds:** \$3.28 M      **Total Est. Cost:** \$34.4 M  
**Net Benefit After 20 Years:** 378 acres  
**Status:** Engineering and Design  
**Project Type:** Marsh Creation  
**PPL #:** 26

## Location

Region 3, Terrebonne Basin, Terrebonne Parish, Lake Mechant Mapping Unit

## Problems

The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction, contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed significantly to wetland losses. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to about 130,000 acres over the next 20 years. One-third of the Terrebonne Basin's remaining wetlands would be lost to open water by the year 2040. The wetland loss rate in the area is -0.79%/year based on USGS data from 1984 to 2016.

## Restoration Strategy

The proposed project's primary feature is to create and/or nourish approximately 504 acres of intermediate marsh adjacent to Lake De Cade and restore 11,726 linear feet of ridge habitat along the northern bank of Bayou De Cade. To achieve this, sediment will be hydraulically pumped from a borrow source in Lake De Cade. The borrow area in Lake De Cade would be located and designed in a manner to avoid and minimize environmental impacts (e.g., to submerged aquatic vegetation and water quality) to the maximum extent practicable. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, the newly constructed marsh will be planted after construction to stabilize the platform and reduce time for full vegetation. It is anticipated that material for the ridge feature will be



Photo facing southeast across proposed marsh creation area towards proposed ridge area.

mechanically dredged from adjacent areas within Bayou De Cade and/or the marsh area and lifted to a crown elevation of +5.0 feet, 25 feet wide, and will be planted.

## Progress to Date

This project was approved for Phase I Engineering and Design in January 2017.

This project is on Priority Project List (PPL) 26.

For more information, please contact:



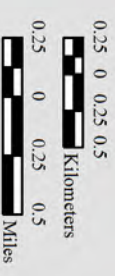
**Federal Sponsor:**  
National Marine Fisheries Service  
Baton Rouge, LA  
(225) 389-0508



**Local Sponsor:**  
Coastal Protection and Restoration Authority  
Baton Rouge, LA  
(225) 342-4736



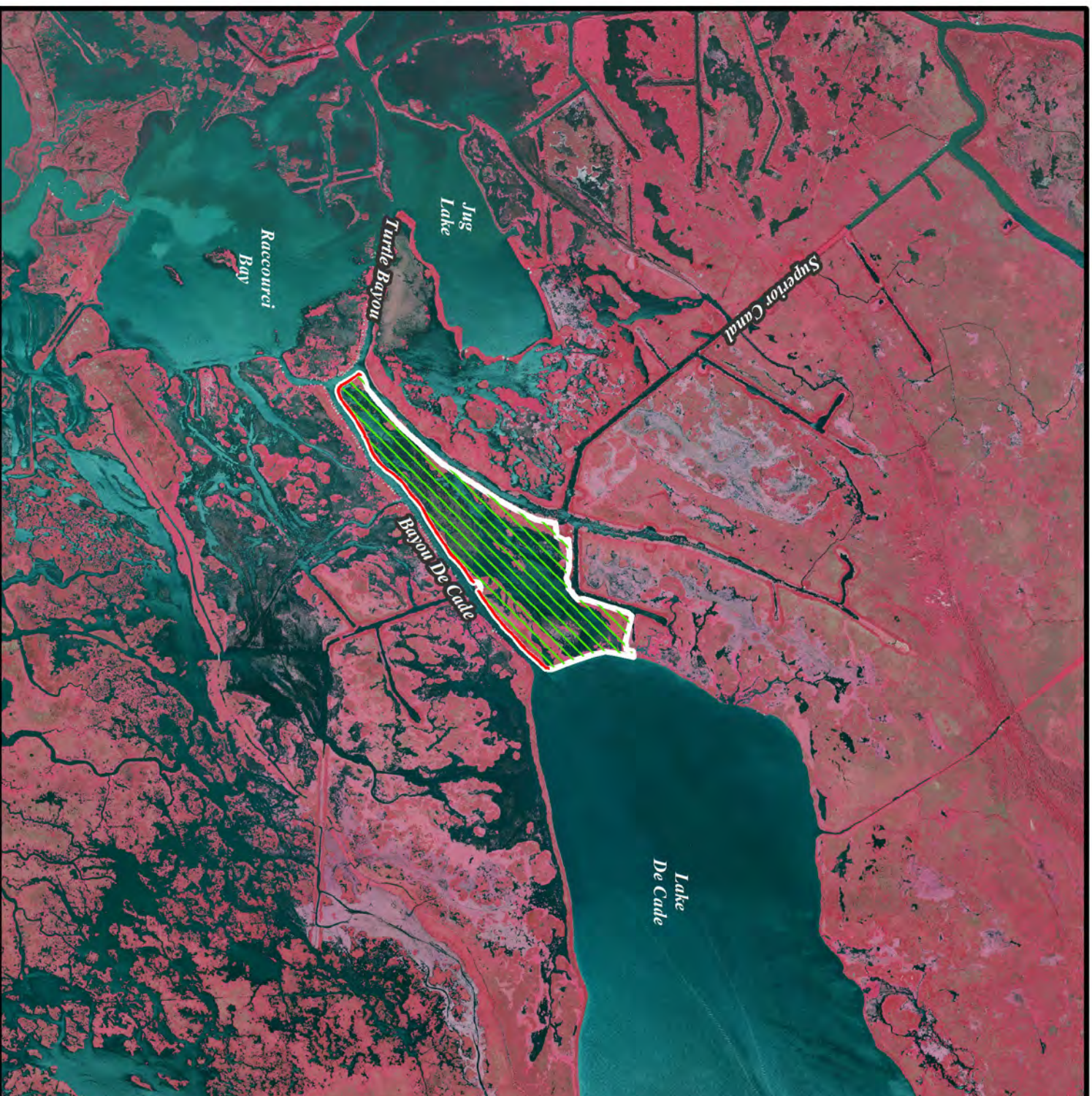
# Bayou Decade Ridge and Marsh Creation (TE-138)



Map Produced by:  
 U.S. Department of the Interior  
 U.S. Geological Survey  
 Wetland and Aquatic Research Center  
 Coastal Restoration Assessment Branch  
 Baton Rouge, La.

Background Imagery:  
 2015 NAIP Photography

Map Date: January 13, 2017  
 Map ID: USGS-NWRC 2017-11-0009  
 Data accurate as of: September 29, 2016





(16/3)

STATE OF LOUISIANA  
SITE RECORD FORM

Site Name: Lake De Cade  
Other Site Designation:  
Instructions for Reaching Site:  
Bayou De Cade W of Lake De Cade  
USGS Quad (Name, date, series): Bayou du Large (1964) 15'  
Quad No: 35-M SW quarter of the SW quarter of Section 26 Township 19S Range: 15E  
UTM Coordinates: Zone: 15 Easting: Northing:  
Geographical Coordinates: Latitude: Longitude:

State Survey No: 16TR40  
Parish: Terrebonne

PHYSICAL SETTING

Land Form: Natural levee  
Geologic Processes: Coastal marsh  
Site Position: In Bayou bank  
Near Water: Bayou de Cade  
Soil Characteristics: Marsh peats  
Floral Communities: Oak  
Faunal Communities:  
Other Potential Resources:  
Nearest Known Site: 16TR41

Slope:  
Elev. ft AMSL:  
Flooding:

SITE DESCRIPTION

Site Size:  
Orientation:  
Artifact Density:  
Cultural Features:  
Small Rangia shell midden - 2' x 30' x 50'  
Cultural Affiliation:  
Neo-Indian (unknown)  
Presumed Function: Prehistoric (unknown)

Plan:  
Stratigraphy:  
Artifact Distribution:

COLLECTIONS

Survey Meth: Grab surface collection  
Assessment of Collecting Conditions:  
Description of Material:  
Very few sherds, shell

CONDITIONS

Present Use:  
Erosion or Disturbance: Wave-washed  
Probable Future Destruction:

Recommendations:

[illegible]

Date: 8/14/52

(323)

STATE OF LOUISIANA

REFERENCE FORM

Site Name Lake Decade

Site Survey Number 16TR40

WM  
33128

References

22-123 Neuman, Robert W.

1977 An archaeological assessment of coastal  
Louisiana. Museum of Geoscience, Louisiana  
State University, Melanges, No. 11. Copy on  
file at the Division of Archaeology and Historic  
Preservation, Department of Culture, Recreation  
and Tourism.



(163)

STATE OF LOUISIANA  
SITE RECORD FORM

Site Name: Turtle Bayou

Other Site Designation:

Instructions for Reaching Site:

Turtle Bayou, below Superior Oil Canal about 100 yds in marsh on L bank

USGS Quad (Name, date, series): Bayou du Large (1964) 15'

Quad No: 35-M quarter of the quarter of Section 34 Township 19S Range: 15E

UTM Coordinates: Zone: 15 Easting: Northing:

Geographical Coordinates: Latitude: Longitude:

State Survey No: 16TR45

Parish: Terrebonne

PHYSICAL SETTING

Land Form: Natural levee

Geologic Processes: Coastal marsh

Site Position: Could be seen from Turtle Bayou

Near Water: Turtle Bayou

Soil Characteristics: Marsh peats

Floral Communities: A few stunted oaks

Faunal Communities:

Other Potential Resources:

Nearest Known Site: 16TR217

Slope:

Elev. ft AMSL:

Flooding:

SITE DESCRIPTION

Site Size:

Orientation:

Artifact Density:

Cultural Features:

Small shell mound - 1 1/2' x 20' x 20'

Cultural Affiliation:

Prehistoric (unknown)

Presumed Function: Prehistoric (unknown)

Plan:

Stratigraphy:

Artifact Distribution:

COLLECTIONS

Survey Meth: Grab surface collection

Assessment of Collecting Conditions:

Description of Material:

Shell

CONDITIONS

Present Use: Subsidized to marsh level

Erosion or Disturbance: Subsidized

Probable Future Destruction:

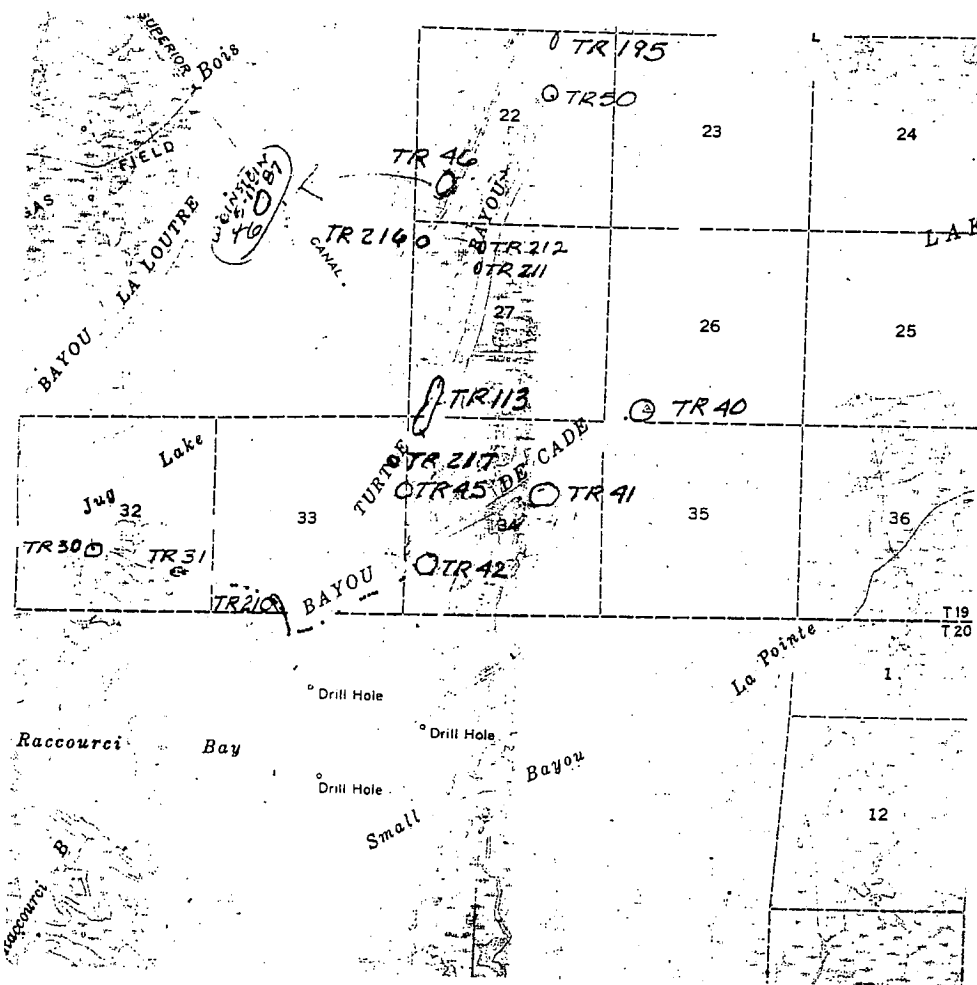
SITE EVALUATION

Site Number: 16TR45

Research Potential:

State/National Register Eligibility: Unknown

Recommendations:

QUAD MAP OF SITE AREARECORDS

Owner and Address:

Tenant and Address:

Informants:

Prev. Invest:

Previous Collections and Availability:

Cat. No. 52-361

References: Neuman (1977)

Photos and Maps:

Remarks:

LSU yellow card states "was not visited, but could be seen from Turtle Bayou - no collection"

Recorder: McIntire and Kniffen

Date: 8/14/52



STATE OF LOUISIANA

REFERENCE FORM

(3 of 3)

Site Name Turtle Bayou

Site Survey Number 16TR45



References

22-123 Neuman, Robert W.

1977. An archaeological assessment of coastal Louisiana. Museum of Geoscience, Louisiana State University, Melanges, No. 11. Copy on file at the Division of Archaeology and Historic Preservation, Department of Culture, Recreation and Tourism.