

COASTAL PROTECTION AND RESTORATION AUTHORITY

Near-Term Construction Outlook

WEDA Gulf Coast Chapter Annual Meeting

November 15, 2018

Jerry Carroll, P.E. – CPRA Engineering Division



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Louisiana's Coastal Emergency

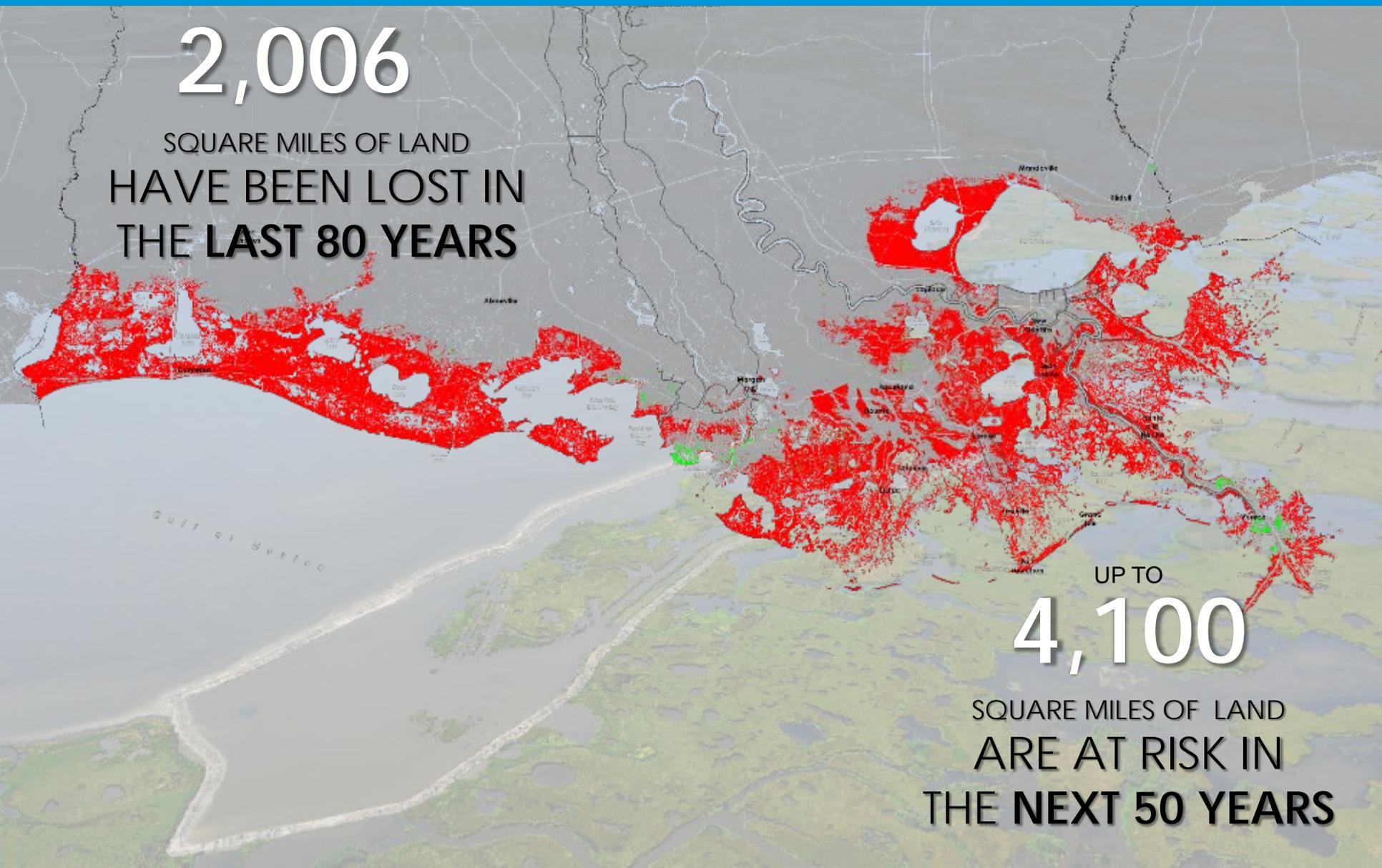


2,006

SQUARE MILES OF LAND
HAVE BEEN LOST IN
THE **LAST 80 YEARS**

UP TO
4,100

SQUARE MILES OF LAND
ARE AT RISK IN
THE **NEXT 50 YEARS**

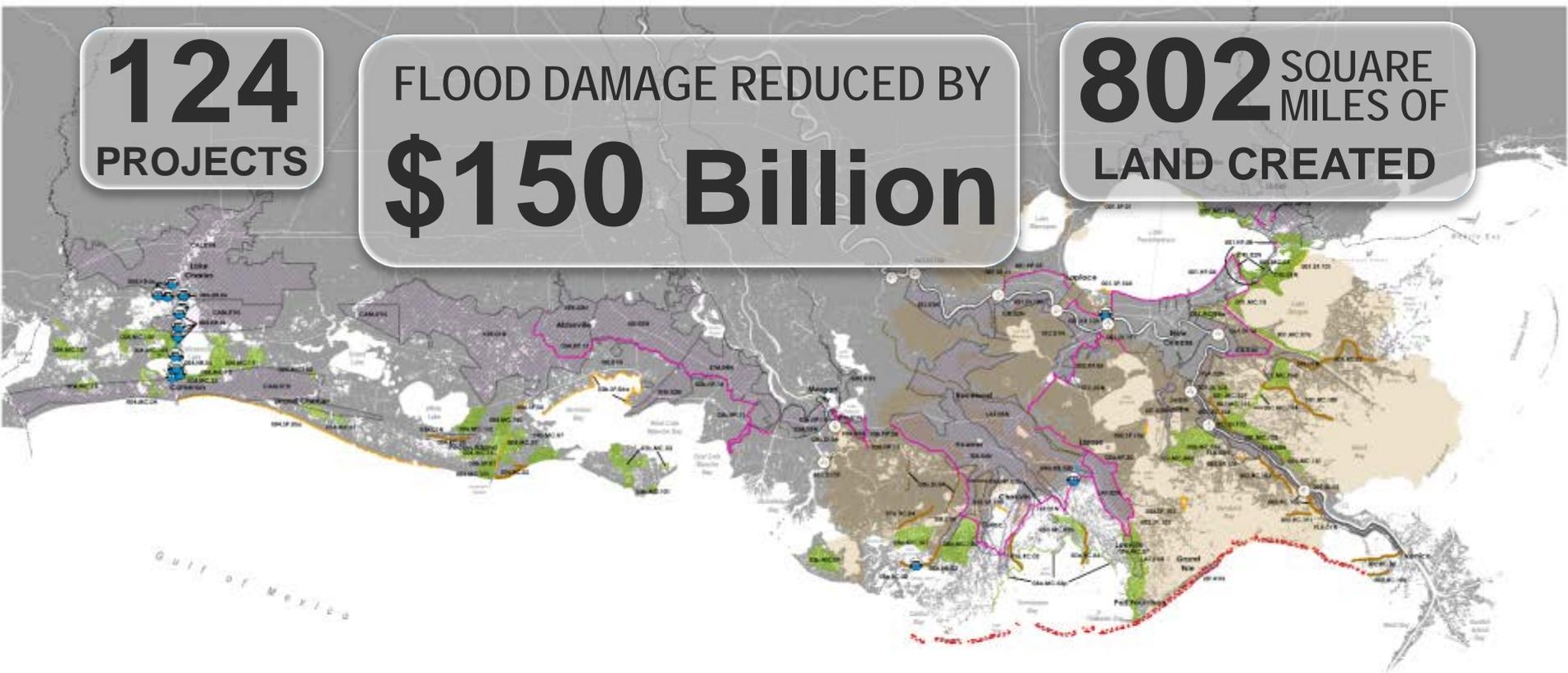


Louisiana's 2017 Coastal Master Plan

124
PROJECTS

FLOOD DAMAGE REDUCED BY
\$150 Billion

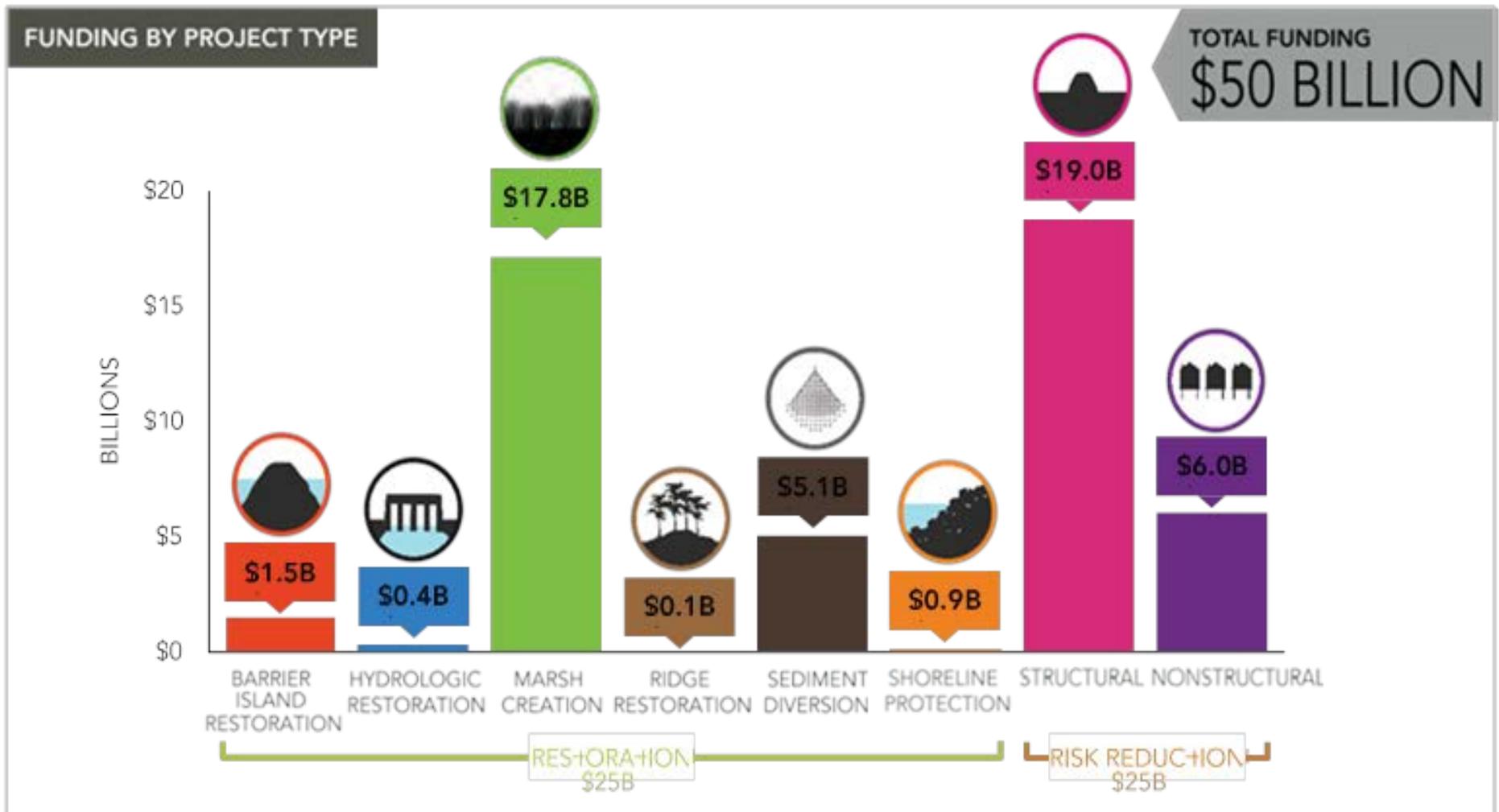
802 SQUARE
MILES OF
LAND CREATED



- Structural Protection
- Nonstructural Risk Reduction
- Ridge Restoration
- Shoreline Protection
- Barrier Island Restoration
- Marsh Creation
- Sediment Diversion
- Hydrologic Restoration

Small scale hydrologic restoration and oyster reef/living shoreline projects are included programmatically in the 2017 Coastal Master Plan. Consistency of individual projects will be determined on a case-by-case basis.

Our Plan



Upcoming Construction 2019 and early 2020



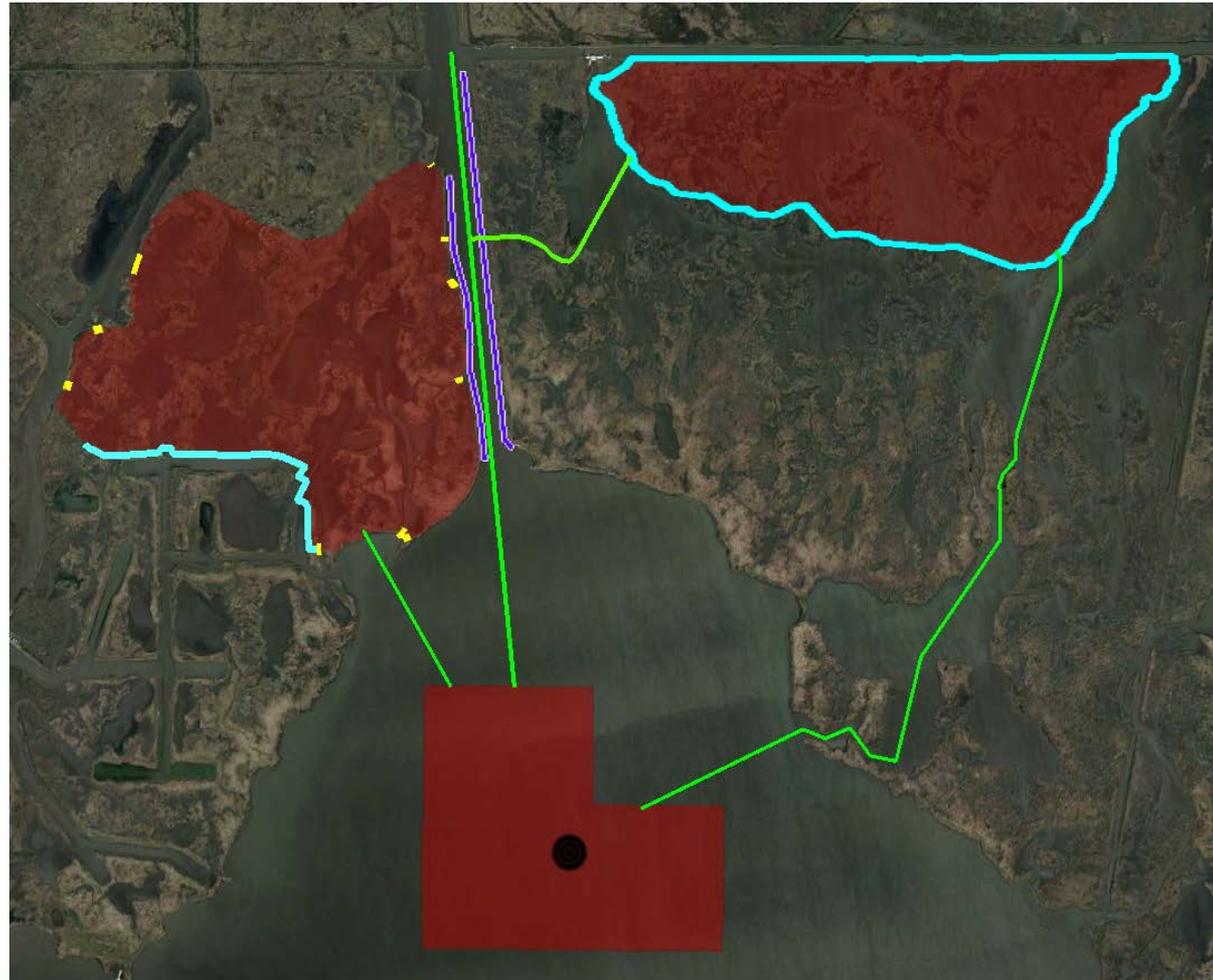
Coastal Protection and
Restoration Authority of Louisiana



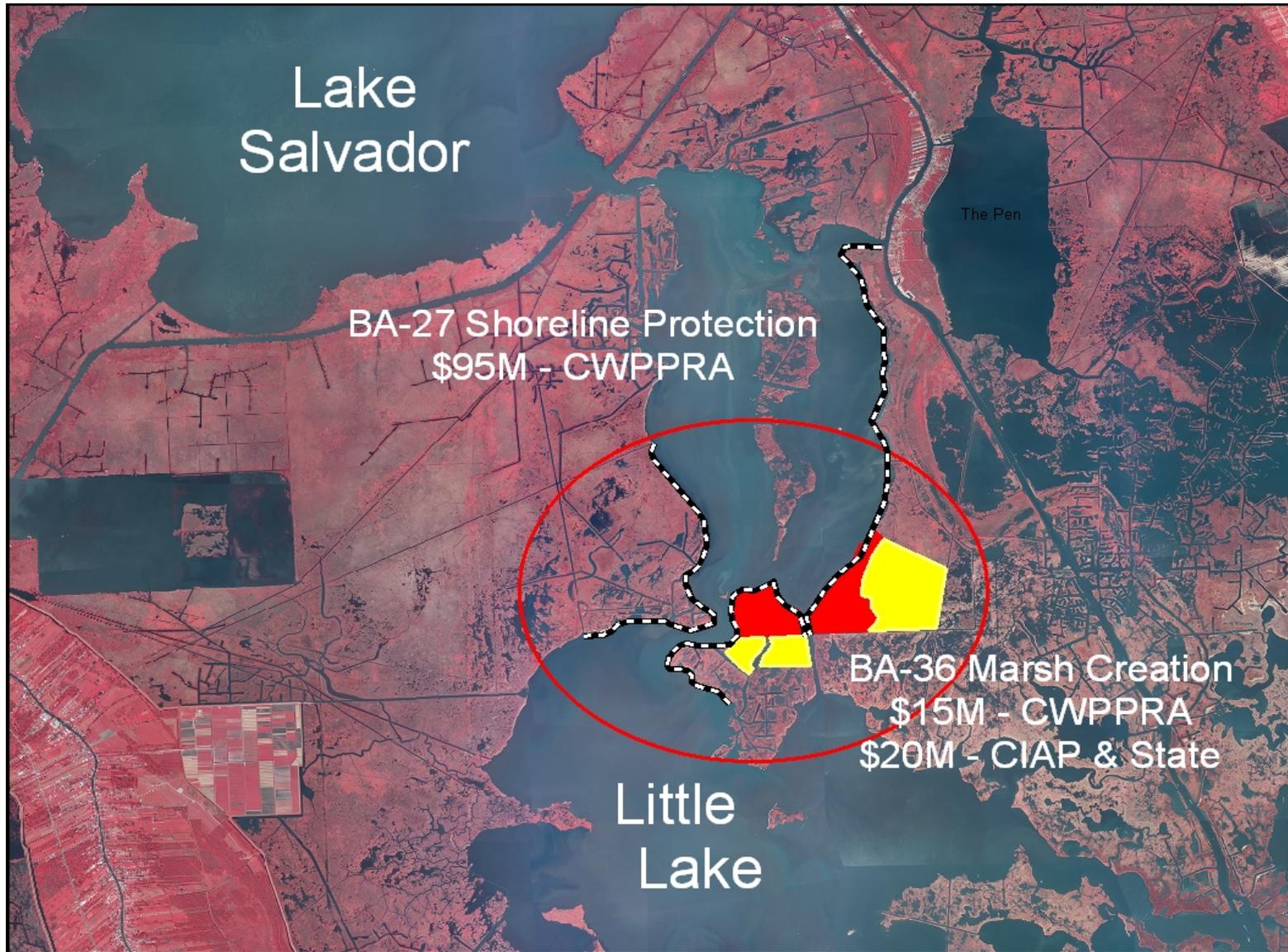
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Northwest Turtle Bay Marsh Creation Project (BA-0125)

- **Location:** Jefferson Parish
- **Borrow Location:** Turtle Bay (Little Lake)
- **Project Area:** 807 Acres
- **Containment Dike:** 23,000 LF
- **Fill Volume:** 2.1 MCY
- **Cost:** \$15-\$20M
- **Construction Duration:** 475 days
- **Bid Date:** Early 2019

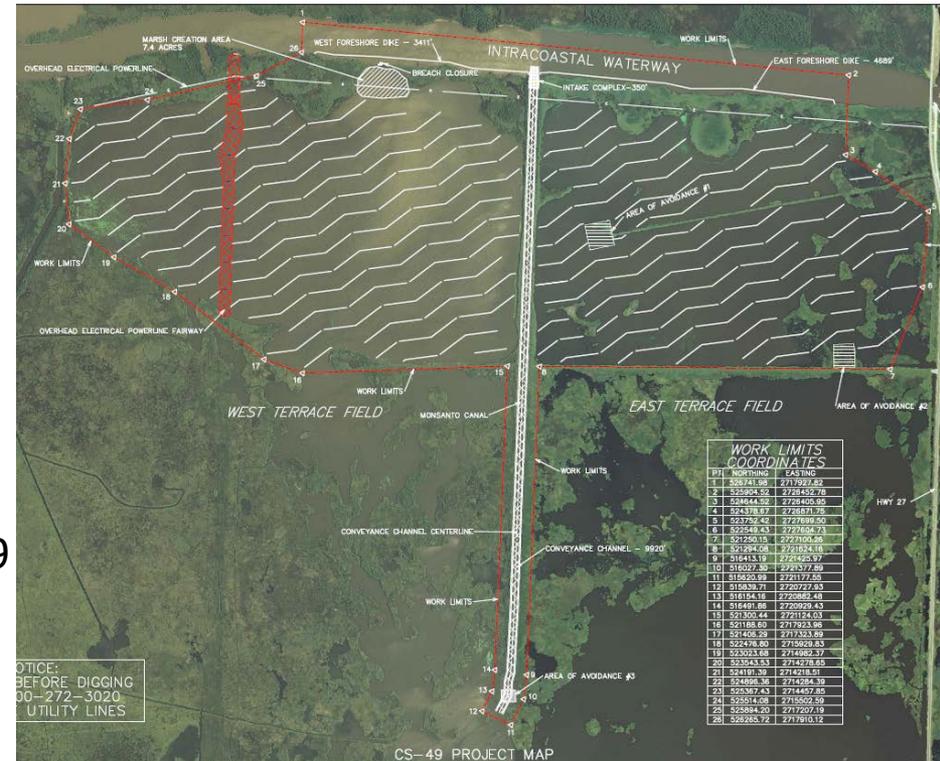


Project Background: Past Regional Investment



Cameron Creole Freshwater Introduction Project (CS-0049)

- **Project Location:** Cameron Parish
- **Borrow Location:** Montesano Canal
- **Estimated Dredge Quantity:** 300,000 CY (excavation of channel for structure)
- **Estimated Terrace Length:** 125,130 LF
- **Estimated Advertisement Date:** January 2019
- **Estimated Construction Duration:** 565 Days
- **Estimated Construction Costs:** \$15M-\$20M





**Cameron-Creole Freshwater Introduction
(PPL18 Candidate)**



-  Shoreline Protection *
 -  Freshwater Introduction *
 -  Vegetative Plantings *
 -  Terrace Field *
 -  Project Boundary
- * denotes proposed features



Scale: 1:125,000



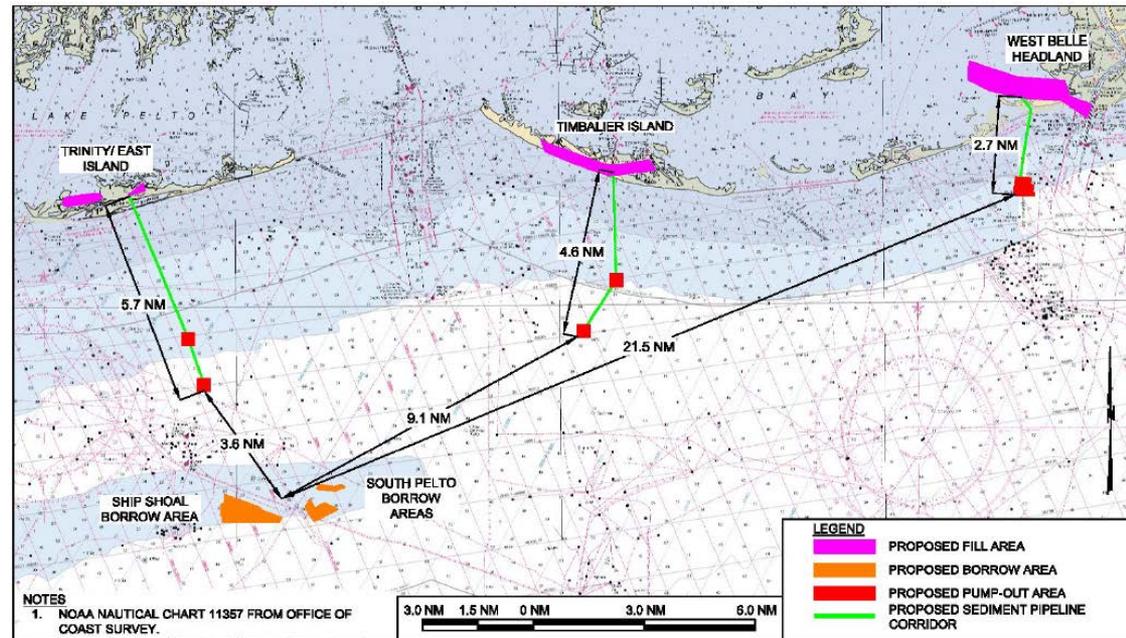
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, LA

Image Source:
2005 Digital Orthophoto Quarter Quadrangle

Map ID: USGS-NWRC 2008-11-0383
Map Date: July 21, 2008

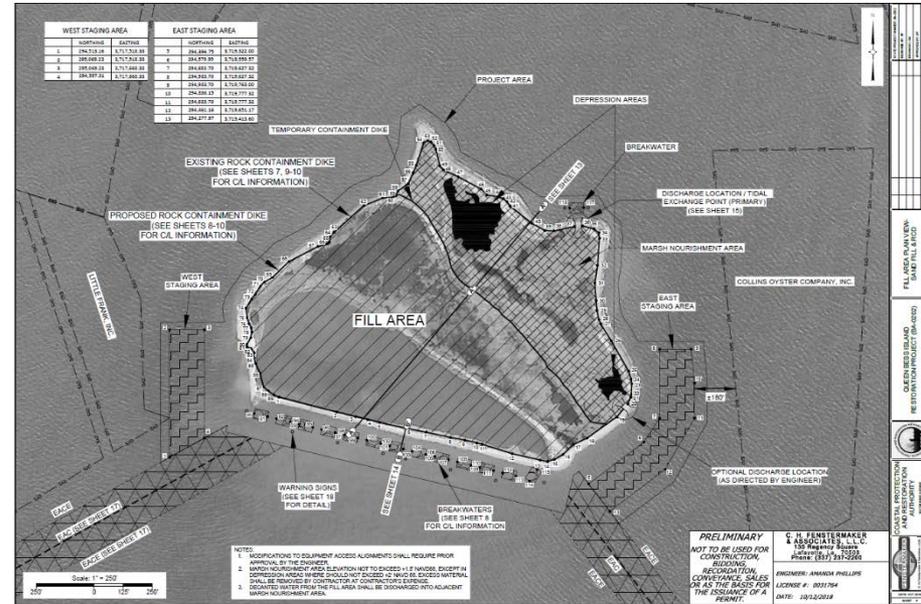
Terrebonne Basin Barrier Island and Beach Nourishment (TE-0143)

- **Project Location:** Terrebonne Parish
- **Borrow Location:** Gulf of Mexico
- **Beach Nourishment Dredge Quantity:** 8.7 MCY
 - Timbalier Island: 3.1 MCY
 - Trinity/East Island: 2.2 MCY
 - West Belle Pass Headland: 3.4 MCY
- **Marsh Creation Dredge Quantity:** 1.3 MCY
- **Estimated Advertisement Date:** July 2019
- **Estimated Construction Duration:** 780 Days
- **Estimated Construction Costs:** \$155M-\$160M



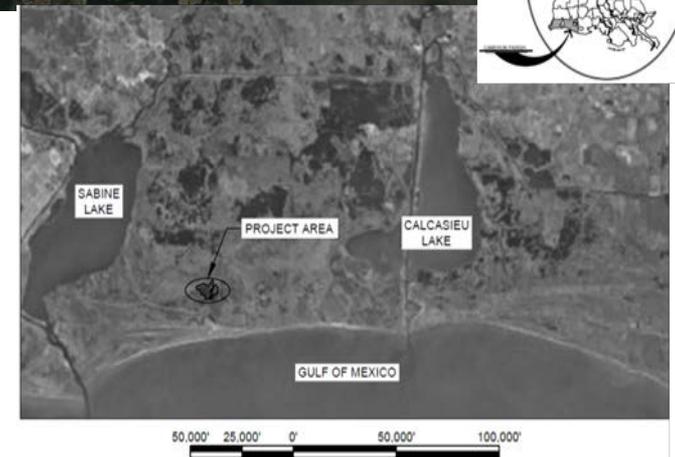
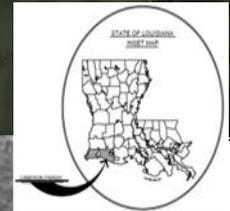
Queen Bess Island Restoration (BA-0202)

- **Project Location:** Jefferson Parish
- **Borrow Location:** Quarry-Procured Sand
- **Restoration Area:** 36 AC
- **Estimated Borrow Quantity:** 0.5M CY
- **Estimated Rock Quantities:**
 - Limestone: 10K TON
 - 250# Rip Rap: 25K TON (4K LF Dike, 1K LF Breakwater)
- **Estimated Advertisement Date:** Summer 2019
- **Estimated Construction Duration:** 145 Days
- **Estimated Construction Costs:** \$10M-\$15M



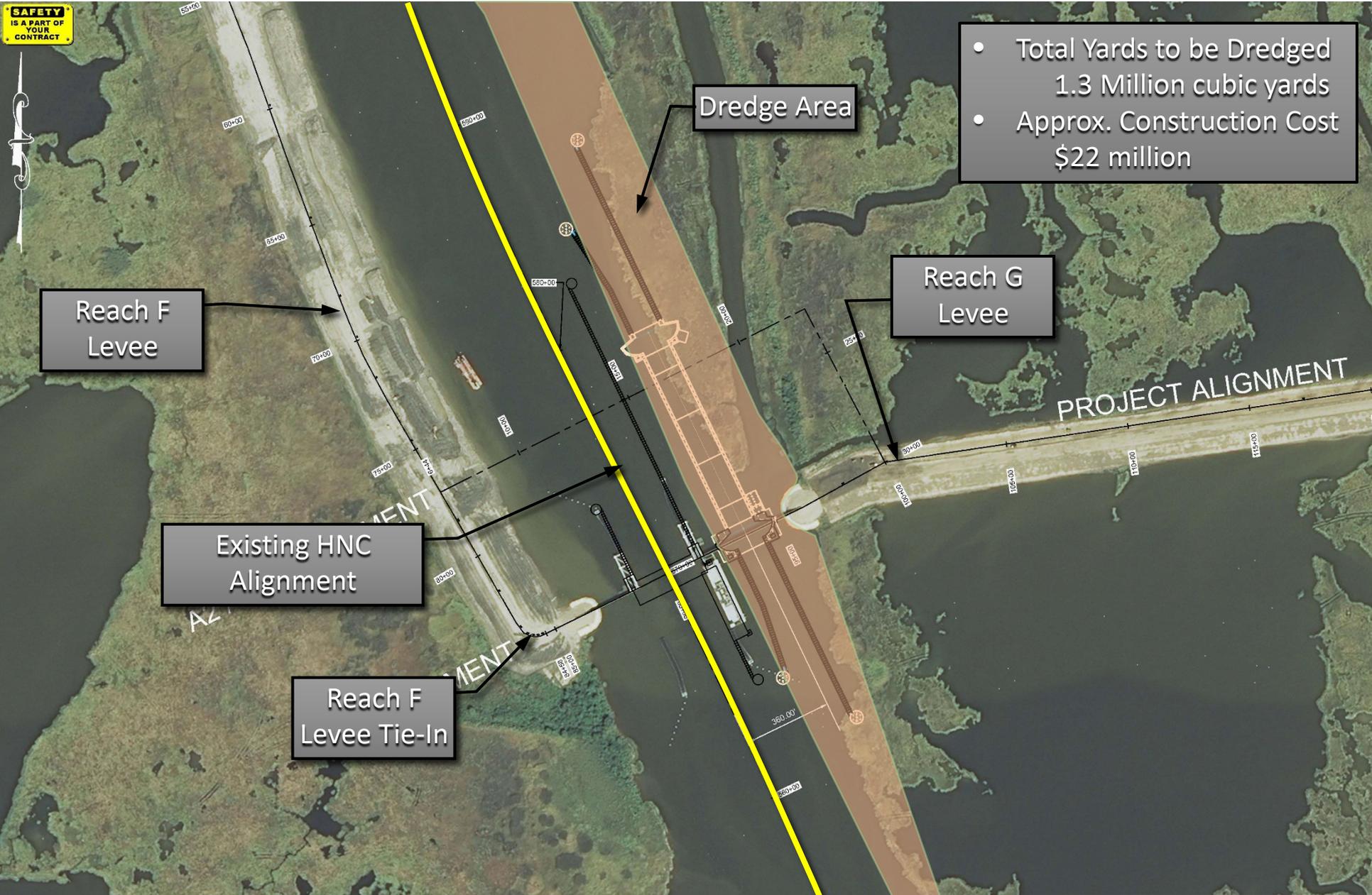
Cameron Meadows Marsh Creation Project (CS-66)

- **Project Location:** Cameron Parish
- **Borrow Location:** Gulf of Mexico
- **Marsh Creation Area:** 304 Acres
- **Terracing:** 12,150 LF
- **Estimated Dredge Quantity:** 2.6 MCY
- **Estimated Advertisement Date:** May 2019
- **Estimated Construction Duration:** 360 Days
- **Estimated Construction Costs:** \$30M-\$35M



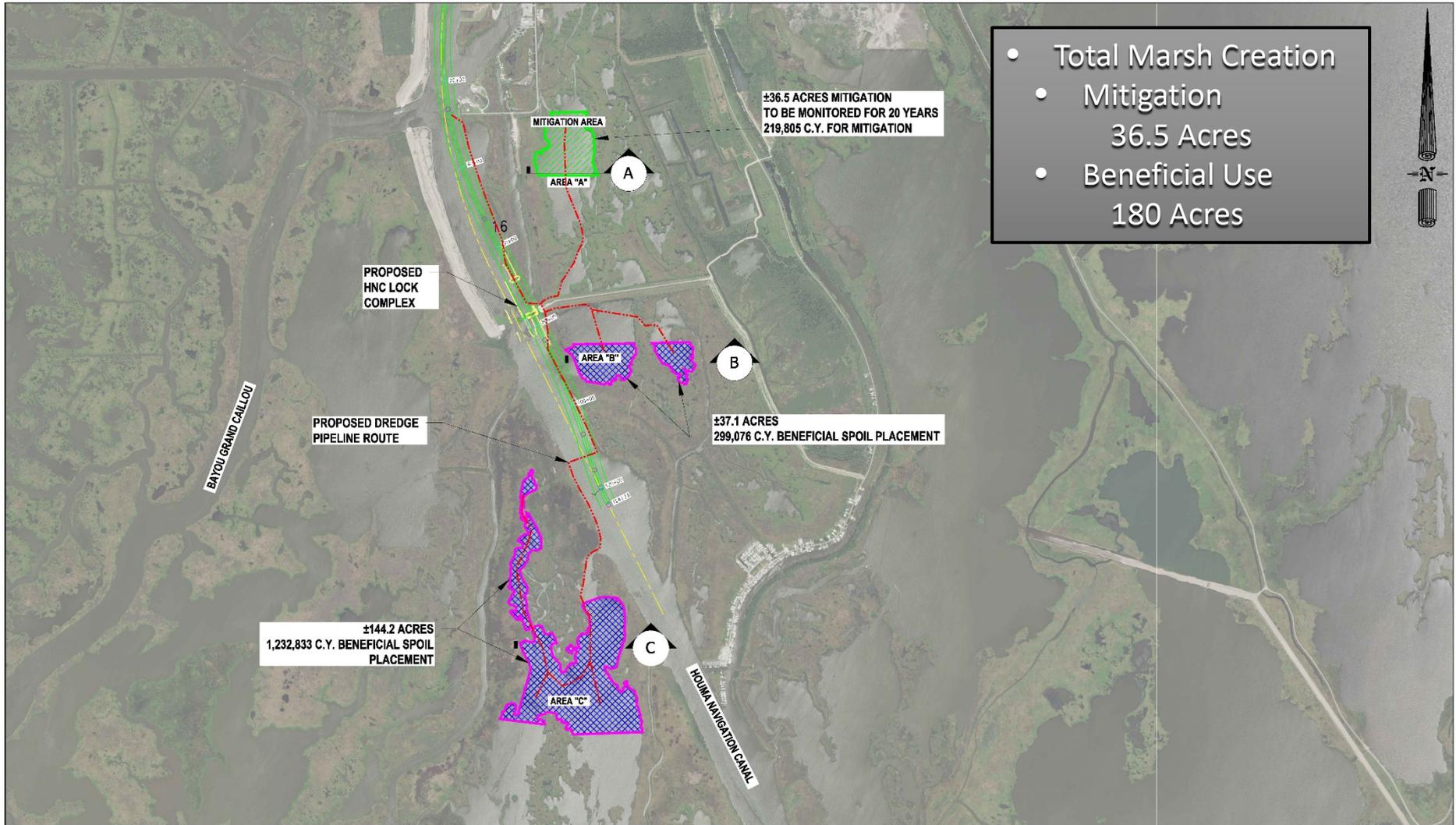
HNC Lock Complex – Proposed Dredging

SAFETY IS A PART OF YOUR CONTRACT



- Total Yards to be Dredged 1.3 Million cubic yards
- Approx. Construction Cost \$22 million

HNC Lock Complex – Proposed Disposal



- Total Marsh Creation
- Mitigation
36.5 Acres
- Beneficial Use
180 Acres

LEGEND

- MITIGATION AREA
- BENEFICIAL SPOIL PLACEMENT
- CONTAINMENT DIKES
- TRAINING DIKES
- PROPOSED DREDGE PIPELINE ROUTE



Caminada Headland Back Barrier Marsh Creation Project Increment 1 (BA-0171)

- **Project Location:** Lafourche Parish
- **Borrow Location:** Gulf of Mexico
- **Marsh Creation Area:** 385 Acres
- **Estimated Dredge Quantity:** 1.6 MCY
- **Estimated Advertisement Date:** November 2019
- **Estimated Construction Duration:** 385 Days
- **Estimated Construction Costs:** \$10M-\$15M



Project Competing for Construction Funding



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Restoration Authority of Louisiana

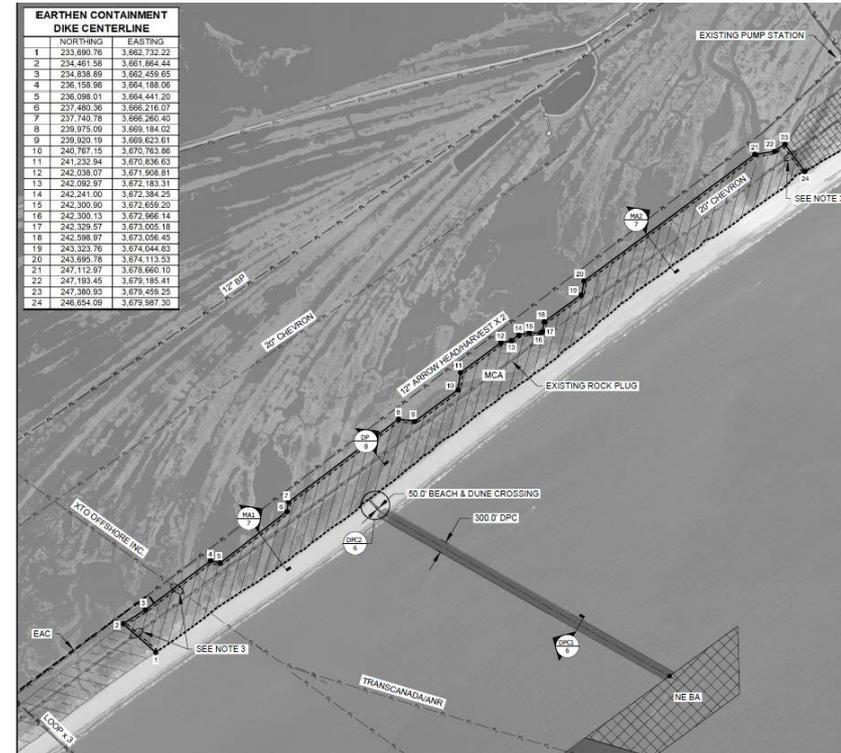
Construction in late 2019 or 2020



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Caminada Headland Back Barrier Marsh Creation Project Increment 2 (BA-0193)

- **Project Location:** Lafourche and Jefferson Parish
- **Borrow Location:** Gulf of Mexico
- **Marsh Creation Area:** 542 Acres
- **Estimated Dredge Quantity:** 1.6 MCY
- **Estimated Advertisement Date:** November 2019
(contingent upon receiving construction funding)
- **Estimated Construction Duration:** 325 Days
- **Estimated Construction Costs:** \$10M-\$15M



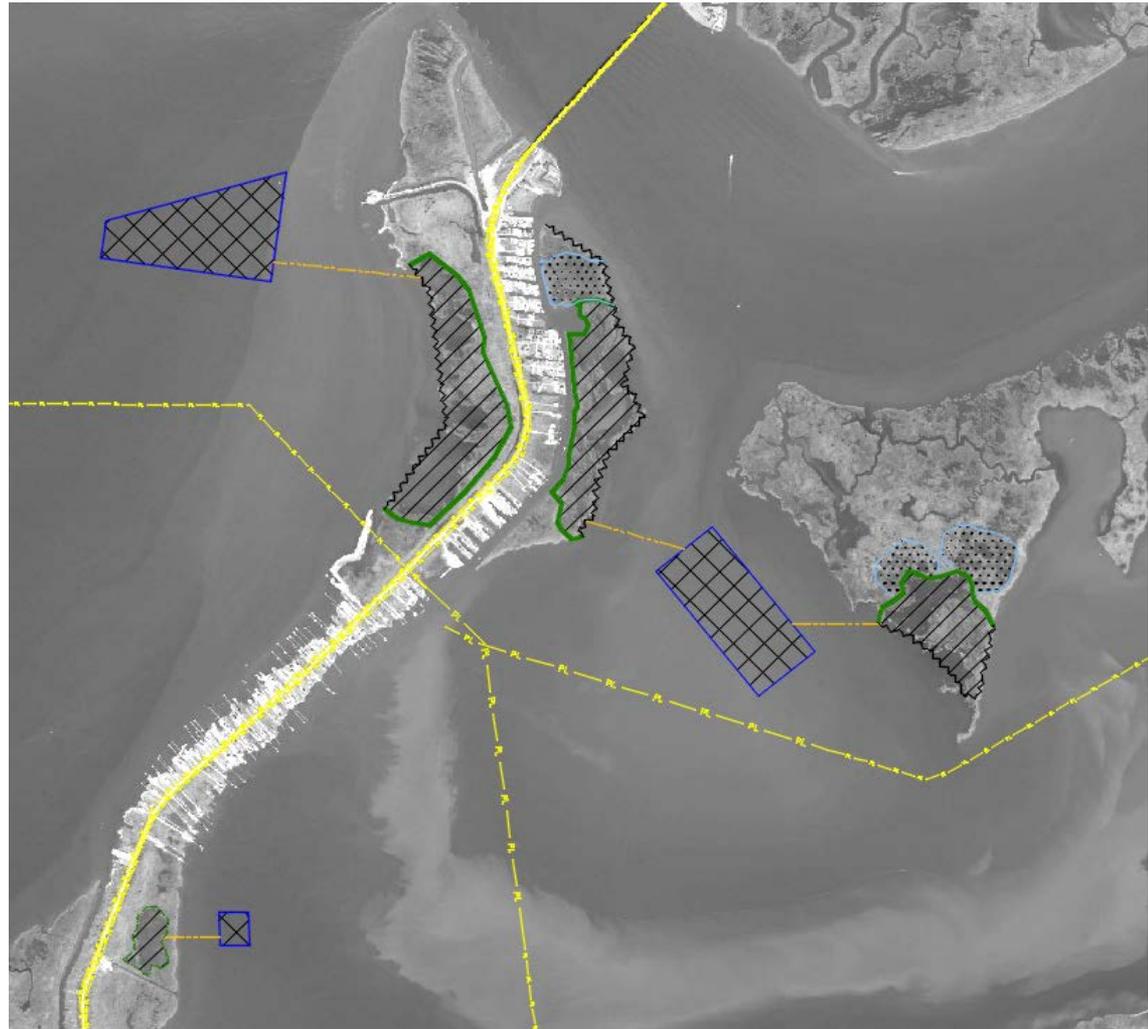
West Fourchon March Creation & Nourishment Project (TE-134)

- **Location:** Lafourche Parish
- **Borrow Location:** Nearshore Gulf of Mexico
- **Project Area:** 537 Acres
- **Containment Dike:** 36,000 LF
- **Fill Volume:** 1.6 MCY
- **Cost:** \$15-\$20M
- **Construction Duration:** 425 days
- **Competing for Construction Funding Early 2019**



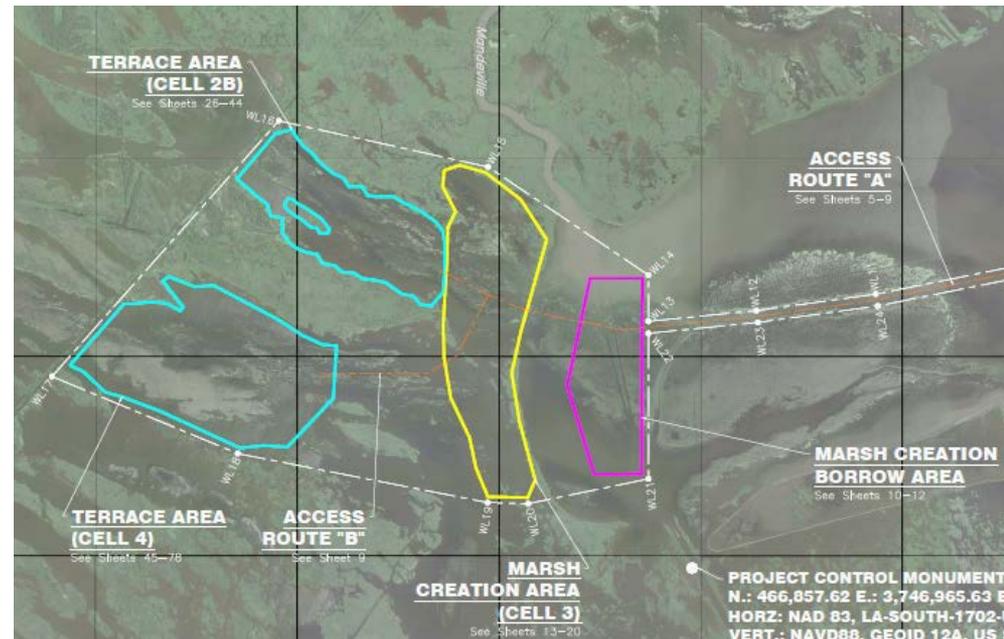
New Orleans Landbridge Shoreline Stabilization & Marsh Creation (PO-169)

- **Location:** Orleans Parish
- **Borrow Locations:** Lakes Pontchartrain and St. Catherine
- **Project Area:** 269 Acres
- **Containment Dike:** 30,240 LF
- **Armored ECD:** 15,670 LF
- **Fill Volume:** 1.3 MCY
- **Cost:** \$15-\$20M
- **Construction Duration:** 385 days
- **Bid Date:** (contingent upon receiving construction funding)



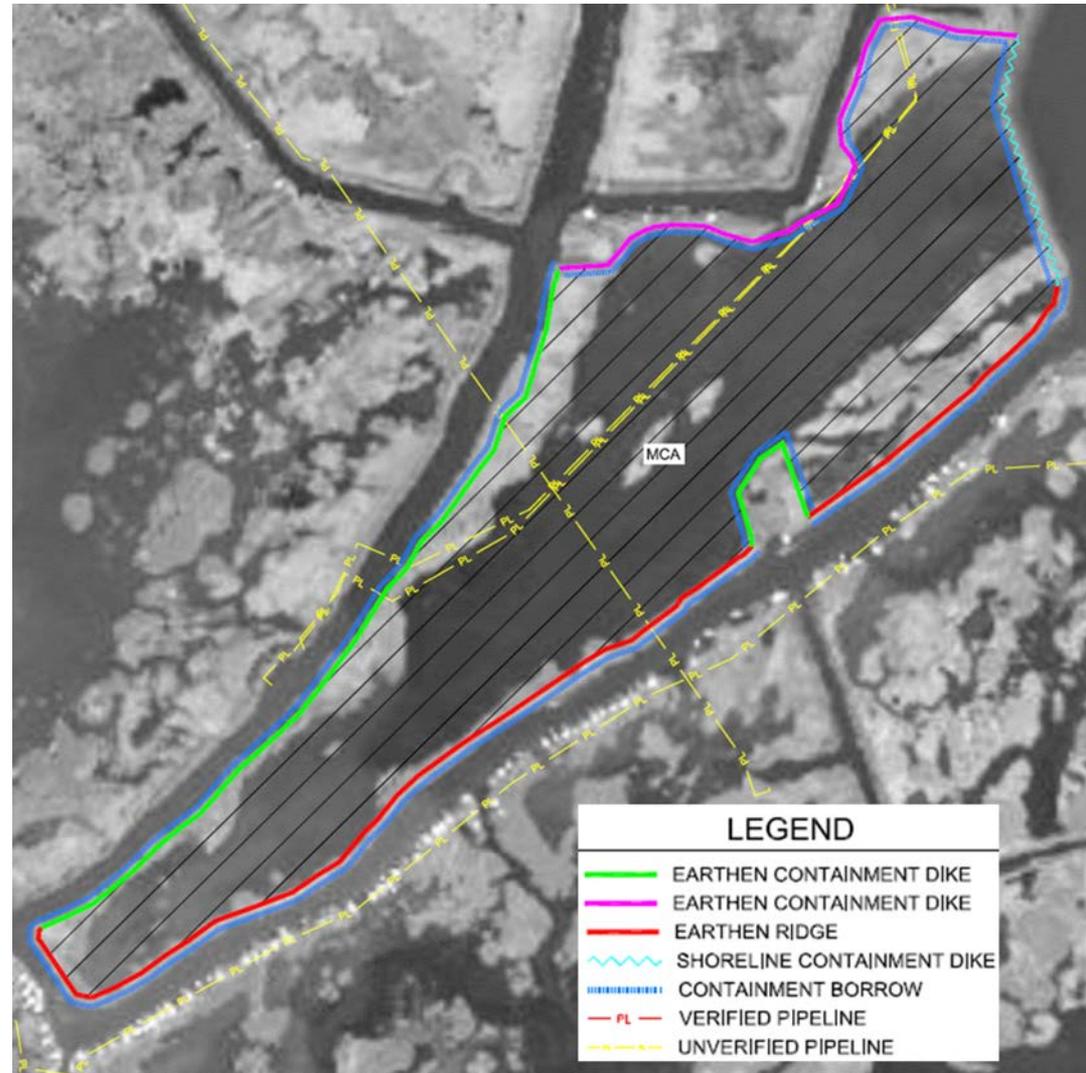
Terracing and Marsh Creation South of Big Mar (BS-0024)

- **Project Location:** Plaquemines Parish
- **Borrow Location:** Lake Lery
- **Marsh Creation Area:** 334 Acres
- **Estimated Dredge Quantity:** 4.1 MCY
- **Estimated Terrace Length:** 68,484 LF
- **Estimated Advertisement Date:** 2019*
(contingent upon construction funding)
- **Estimated Construction Duration:** 875 Days
- **Estimated Construction Costs:** \$25M-\$30M



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

- **Project Location:** Terrebonne Parish
- **Borrow Location:** Lake De Cade
- **Marsh Creation Area:** 473 Acres
- **Estimated Dredge Quantity:** 2.7 MCY
- **Estimated Earthen Ridge:** 11,130 LF
- **Bid Date:** 2020* (contingent upon construction funding)
- **Estimated Construction Costs:** \$20M

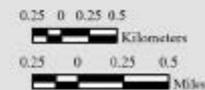


Phase 0 Concept

- Creation and/or Nourishment of 504 Acres of Marsh
- Creation of 11,726 Linear Feet of Ridge Habitat
- 83.8% Water : 16.2% Land



Bayou Decade Ridge and Marsh Creation (TE-138)



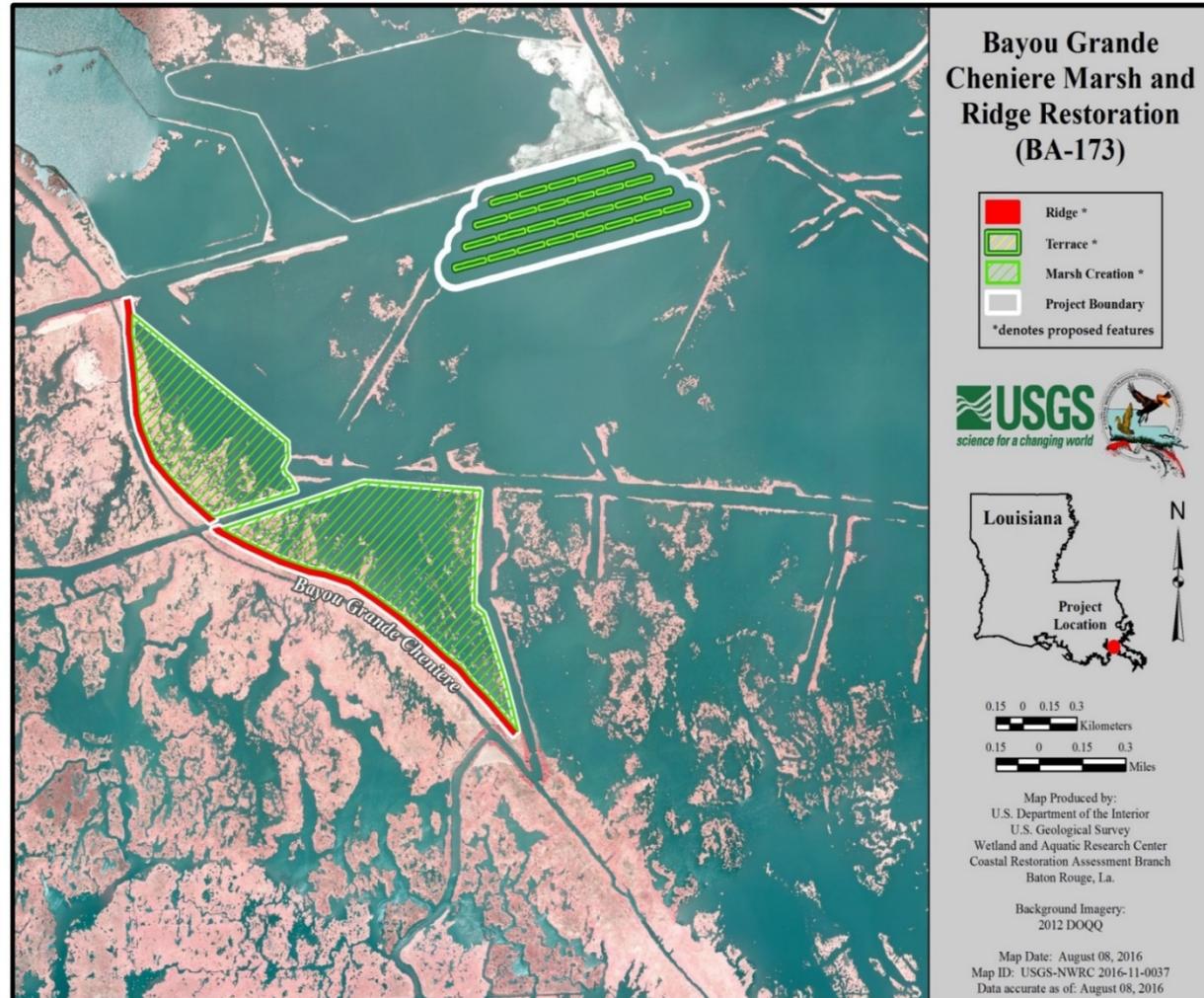
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.

Background Imagery:
2015 NAIP Photography

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

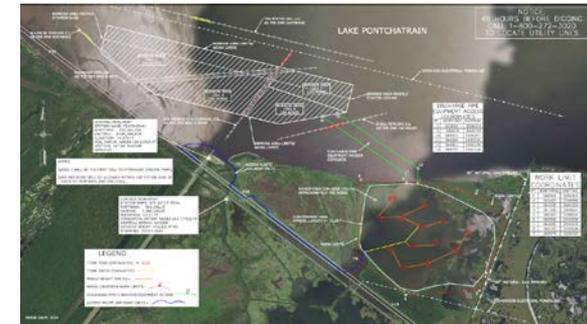
Bayou Grand Cheniere Marsh & Ridge Restoration(BA-173)

- **Location:** Plaquemines Parish
- **Borrow Location:** Mississippi River
- **Project Area:** 302 Acres
- **Earthen Ridge:** 10,625 LF
- **Fill Volume:** 2.25 MCY
- **Terracing:** 17,000 LF
- **Cost:** \$25-\$30M
- **Bid Date:** (contingent upon receiving construction funding)



LaBranche East Marsh Creation Project (PO-75)

- **Location:** St. Charles Parish
- **Borrow Location:** Lake Pontchartrain
- **Project Area:** 726 Acres
- **Containment Dike:** 22,000 LF
- **Fill Volume:** 6.7 MCY
- **Tidal Channels:** 3,275 LF
- **Tidal Ponds:** 13 – 1 acre ponds
- **Cost:** \$35-\$40M
- **Construction Duration:** 330 days
- **Bid Date:** (contingent upon receiving construction funding)



Other Future Construction



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Other Future Construction



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Large Scale Barataria Marsh Creation (BA-207)

- NRDA; 1,400 Acres; Mid-2020

Barataria Basin Ridge & Marsh Creation – Spanish Pass Increment (BA-203)

- NRDA; 1,250 Acres; Mid-2020

Rabbit Island Restoration Project (CS-80)

- NRDA; 200 Acres; Fall 2020

Lake Borgne Marsh Creation – Increment 1 (PO-180)

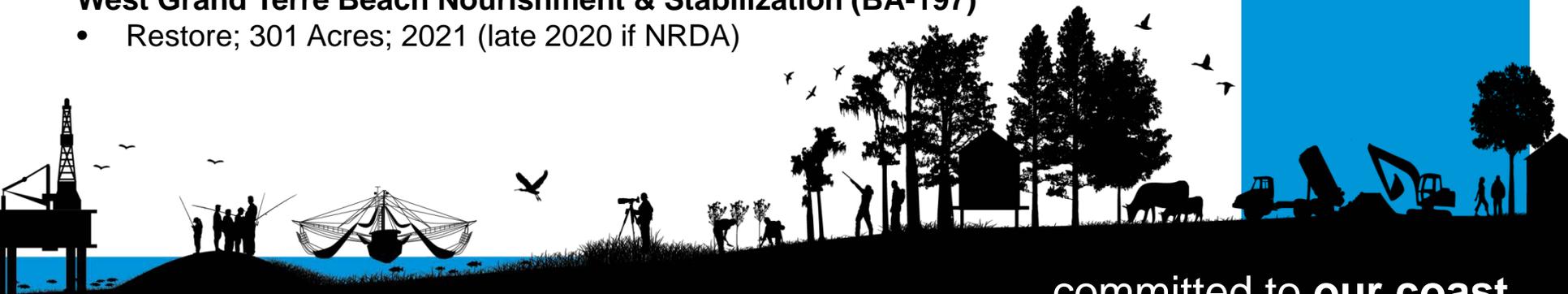
- NRDA; 1,550 Acres; Late 2020

Golden Triangle Marsh Creation (PO-163)

- Restore; 600 Acres; 2021 (late 2020 if NRDA)

West Grand Terre Beach Nourishment & Stabilization (BA-197)

- Restore; 301 Acres; 2021 (late 2020 if NRDA)



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