



Coastal Protection and
Restoration Authority of Louisiana

Southwest Louisiana Regional Update

Patrick J. Landry, P.E.
CPRA Operations Division
August 31, 2016







Sulphur

Lake Charles

Lake Charles

Calcasieu



Orange

CALCASIEU
LAKE

CAMERON PARISH
SHORELINE
PROJECT (CS-33)

GRAND LAKE

WHITE LAKE

GULF OF MEXICO

Sabine Bank

Cost: \$45.8 million (funded 100% with 07-08 State Surplus funds): Construction: **\$40+ million**

Project Features:

- Constructed 5+ miles of beach
- Pumped 2 million cubic yards of sand from source 20+ miles in GOM
- Sand fencing
- Volunteer vegetative plantings

Project Status:

- Sand pumping complete: Feb 2014
- Sand fence re-built: October 2015
- Dunes forming adjacent to sand fencing

Cameron Parish Shoreline Project

Shoreline Prior to Nourishment

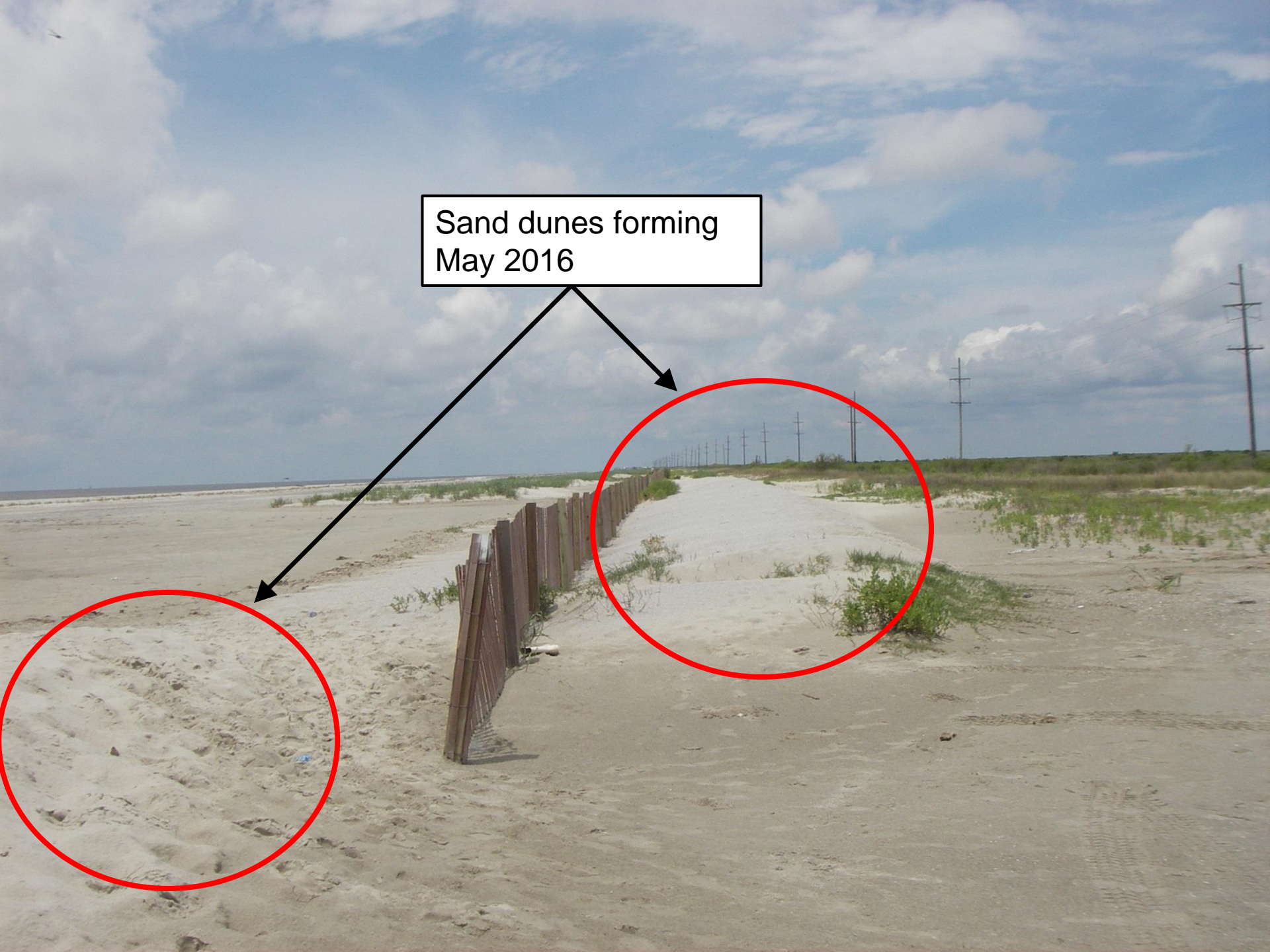




Sand, discharge pipe and sand fencing moving westward towards Holly Beach

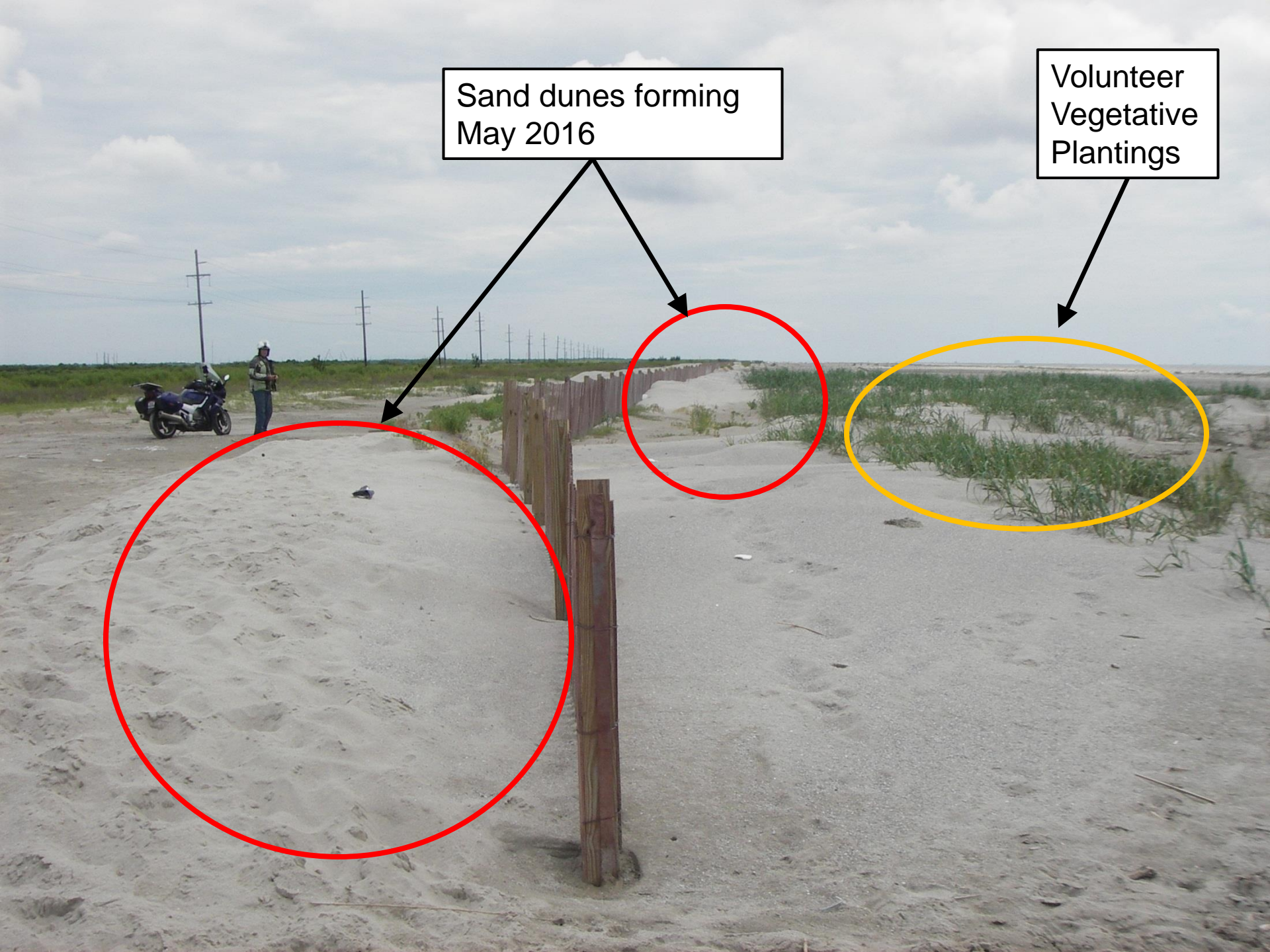


Sand dunes forming
May 2016



Sand dunes forming
May 2016

Volunteer
Vegetative
Plantings





BLACK BAYOU
CULVERTS PROJECT
(CS-29)

CALCASIEU
LAKE

GRAND LAKE

WHITE LAKE

GULF OF MEXICO

Sabine Bank



Black Bayou Culverts (CS-29)

- Concrete box culvert with 10 – 10' X 10' bays with flap gates in Black Bayou along Hwy 384

Black Bayou Culverts (CS-29)

- **Project Goals:** Control water levels & salinity in Mermentau Basin
- **Project Features:** Sheet pile cutoff walls, push piers, rock armor, guardrail improvements
- **Construction Cost:** \$ 7.9 million
- **Project Status:**
 - Original project completed: January 2010
 - Engineering NTP: Lonnie Harper & Assoc. – Jan 2013
 - Construction NTP: May 2015
 - Final Inspection: June 2016
 - Operations contract in place



Black Bayou Culverts (CS-29)



Upstream of the box culvert after de-watering

Notice voids underneath the box culvert



Black Bayou Culverts (CS-29)

Downstream of the box culvert after de-watering
Notice voids under the box culvert





Steel
Sheet Pile
Cutoff Wall



Concrete
Tie-In Slab



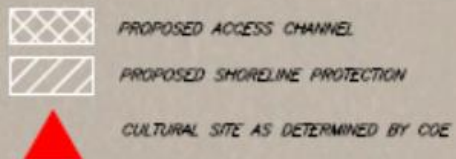


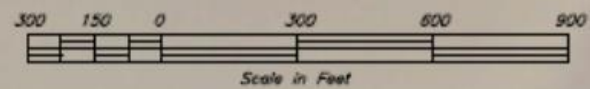
Grand Lake Shoreline Protection



Total Project Budget (CIAP)
Linear Feet
Construction Completion Date
Funding Program

\$10.6 million
37,800
February 2010
CIAP

- 
- PROPOSED ACCESS CHANNEL
- PROPOSED SHORELINE PROTECTION
- CULTURAL SITE AS DETERMINED BY COE



Grand Lake Shoreline Protection (Tebo Point) (ME-21)

- **Project Goals:** Protect SW shoreline of Grand Lake from wake erosion
- **Project Features:** 1.1 miles of foreshore rock
- **Construction Cost:** \$ 4 million (low bid)
- **Project Status:**
 - Bid date: June 2016
 - Award contract: September 2016
 - Construction start: October 2016 (5 months)



OYSTER BAYOU
MARSH CREATION
PROJECT (CS-59)

CALCASIEU
LAKE

GRAND LAKE

WHITE LAKE

GULF OF MEXICO

Sabine Bank



Notes:

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South, North American Datum of 1983 (NAD 83).
2. 2007 background imagery is from Microsoft.

Legend:

- Oyster Bayou Restoration Project
- Oyster Bayou Borrow Area



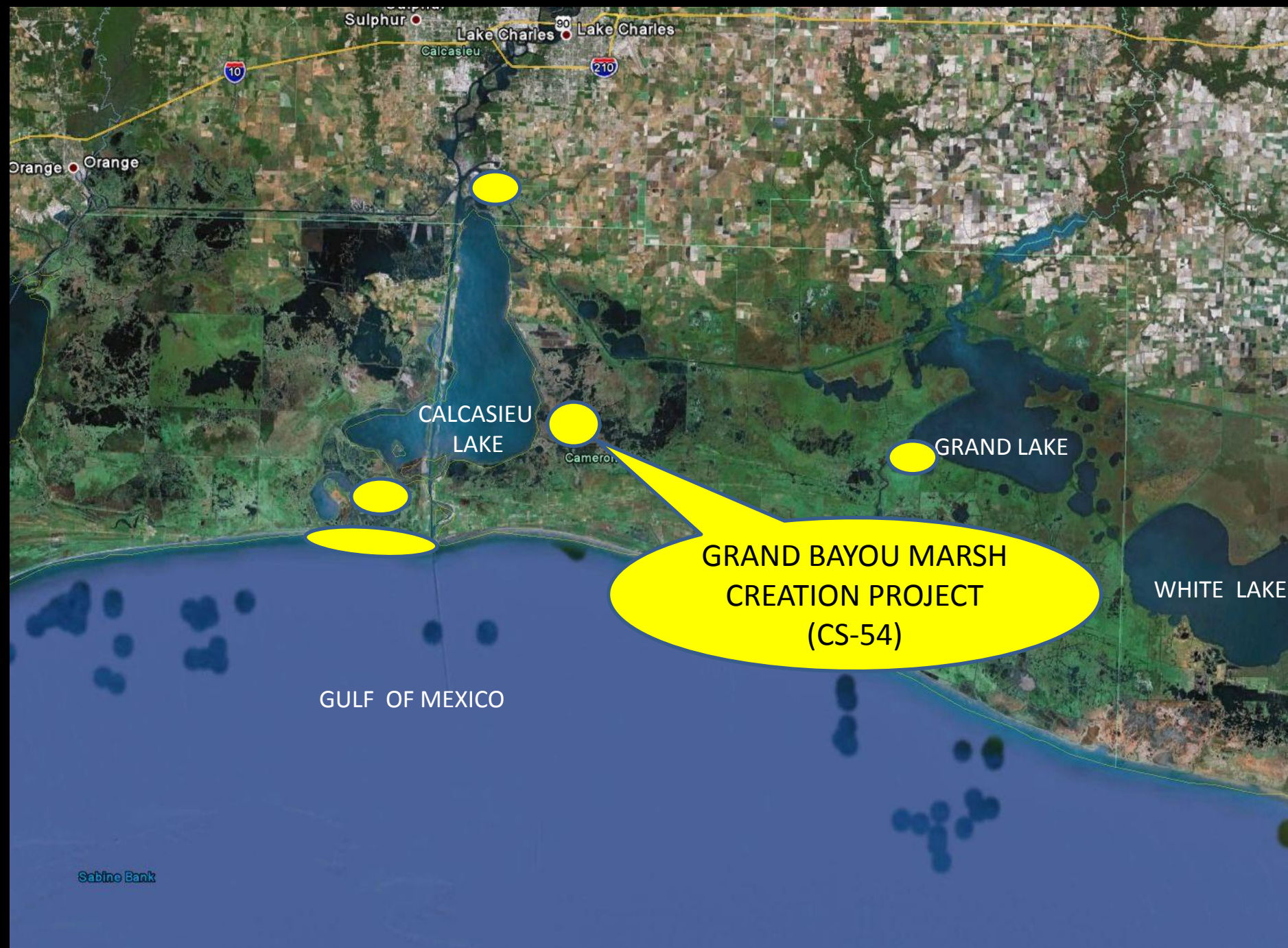
Coastal Planning & Engineering, Inc.
 A CB&I Company
 2481 N. W. Boca Raton Blvd.
 Boca Raton, FL 33431
 Ph. (561) 391-8102
 Fax (561) 391 9116

Title:

Project Overview
Oyster Bayou Marsh Restoration Project CS-59
Cameron Parish, Louisiana

Oyster Bayou Marsh Creation (CS-59)

- **Project Features:** 510 acres of marsh creation & 14,000 feet of terrace construction
- **Construction Cost:** \$ 19.1 M (low bid) (Weeks Marine)
- **Project Status:**
 - Bid opening: August 9, 2016
 - Award Bid: October 2016
 - Construction start: November 2016 (12 months)

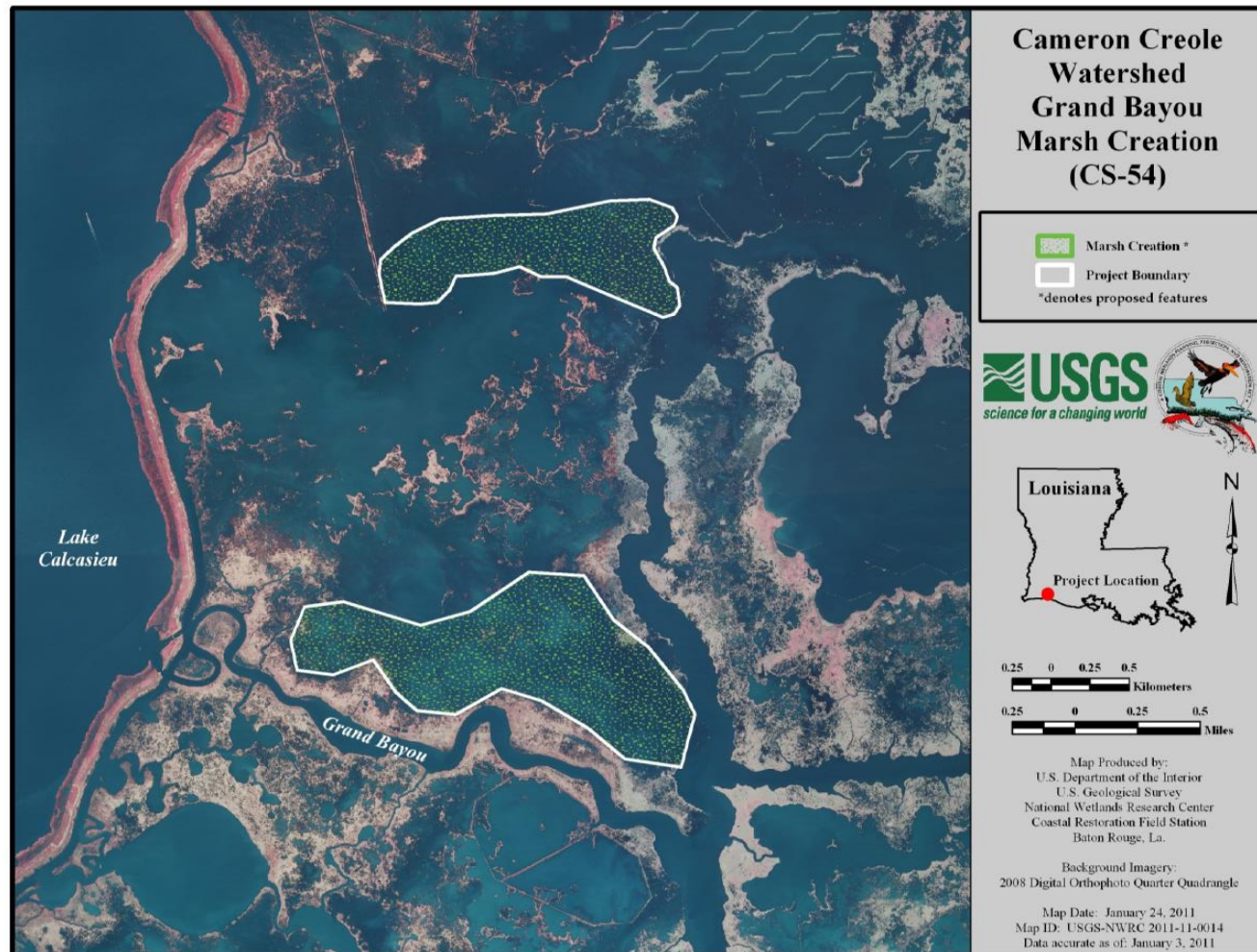


CS-54 Grand Bayou Marsh Creation Project Features

- Two marsh creation areas north of Grand Bayou

Total: 609 ac. created

- ❖ 213 acres on Miami Corp property
- ❖ 396 acres on Cameron Prairie NWR



Grand Bayou Marsh Creation (CS-54)

- **Project Features:** Benefit 609 acres (2 cells)
- **Construction Cost:** \$ 24.6 (estimated)
- **Project Status:**
 - Plans and specs are in final review
 - Project Bid: October 2016
 - Construction start: Feb 2017



Sulphur

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Lake Charles

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Orange

CALCASIEU
LAKE

Cameron

GRAND LAKE

WHITE LAKE

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SOUTH GRAND
CHENIER
HYDROLOGIC
RESTORATION
PROJECT (ME-20)






Rockefeller Refuge

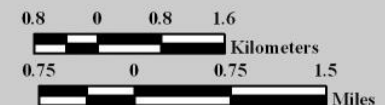
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ME-20 South Grand Chenier Hydrologic Restoration



South Grand Chenier Hydrologic Restoration (ME-20)

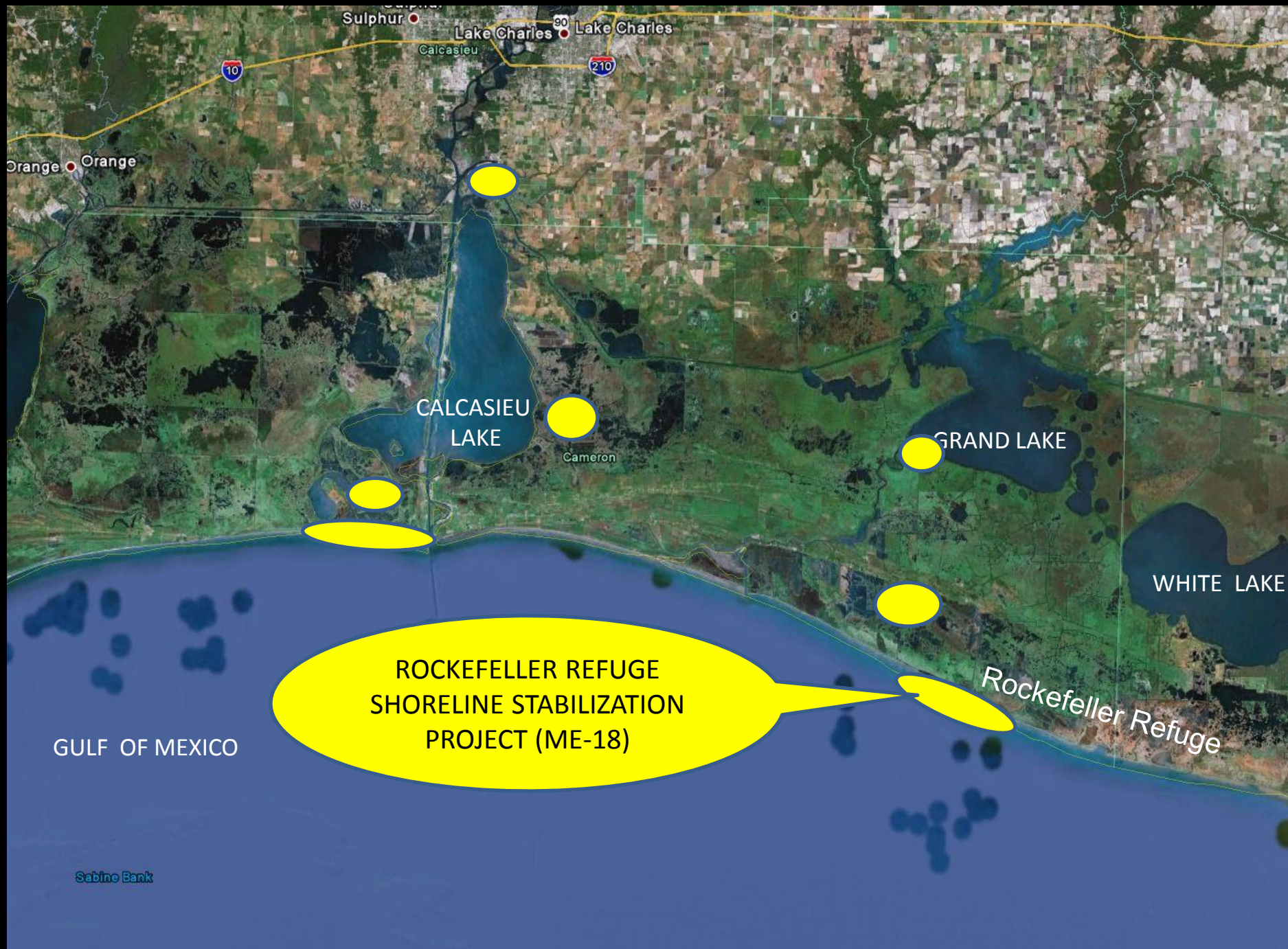
-  Culvert *
 -  Freshwater Diversion *
 -  Marsh Creation *
 -  Borrow Site *
 -  Project Boundary
- *denotes proposed features



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

South Grand Chenier HR Project (ME-20)

- **Project Features:** Benefit 430 acres of marsh by building two 200+ acres cells with sediment from the Gulf of Mexico
- **Construction Cost :** \$18 million (estimated)
- **Project Status:**
 - Final engineering review ongoing
 - Bid Advertisement: November 2016
 - Anticipate construction start: February 2017 (5 months)



ROCKEFELLER REFUGE
SHORELINE STABILIZATION
PROJECT (ME-18)

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WHITE LAKE

Rockefeller Refuge

Sulphur

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Orange

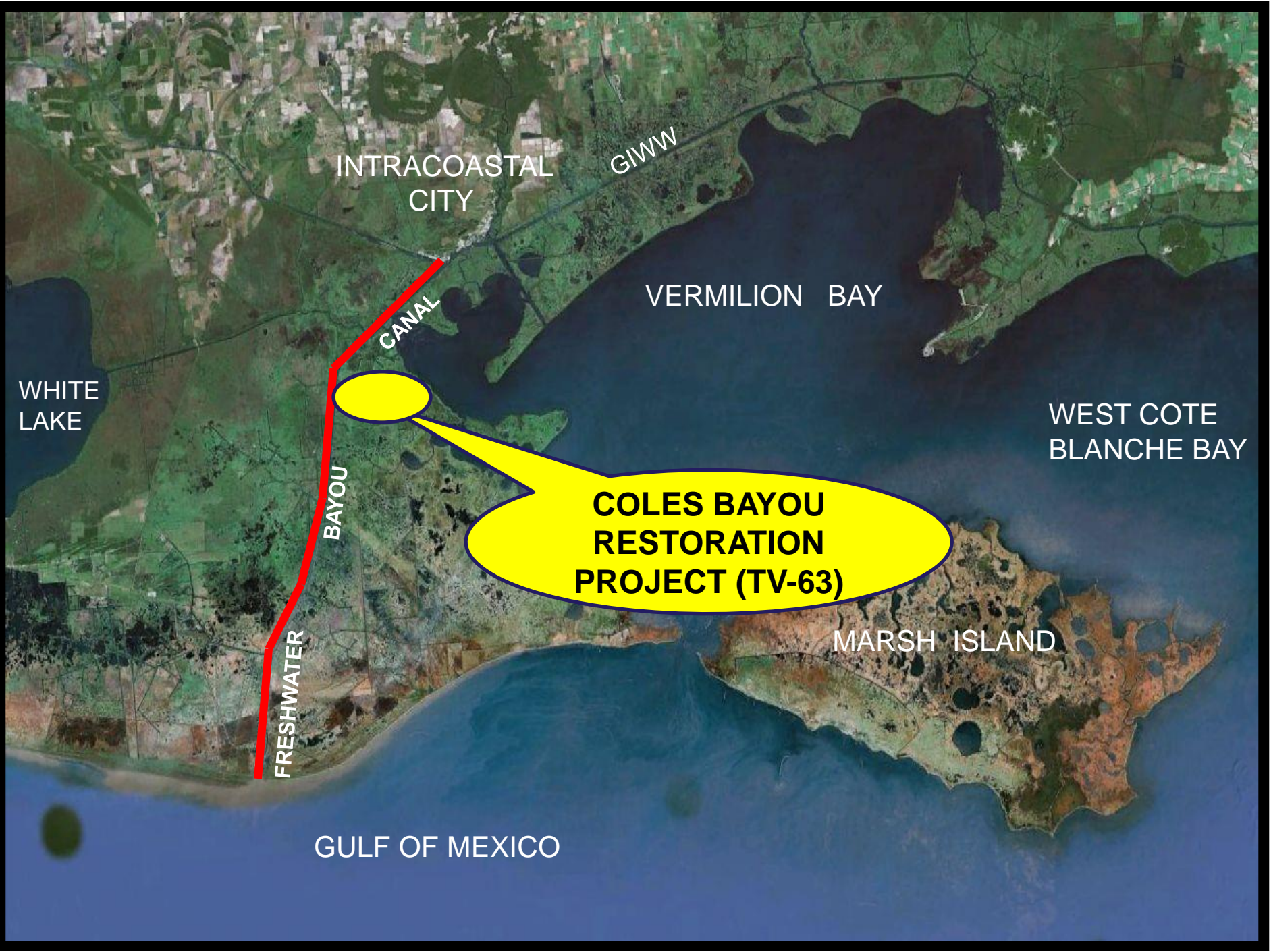
Rockefeller Refuge Shoreline

Reef Breakwater with LWA Core (Sept 2009)



Rockefeller Refuge Shoreline (ME-18)

- **Project Features:** Construct lightweight aggregate core breakwaters along shoreline for 3 miles, approximately 150' offshore on -3.5' contour.
- **Construction Cost:** \$27.5 million (estimated)
- **Project Status:**
 - Construction funding approved at Jan 2016 Task Force meeting
 - Coordinating \$1 million transfer from LDWF
 - Anticipated bidding in early 2017
 - Construction to start: April/May 2017



INTRACOASTAL
CITY

GIWW

VERMILION BAY

WEST COTE
BLANCHE BAY

WHITE
LAKE

CANAL

BAYOU

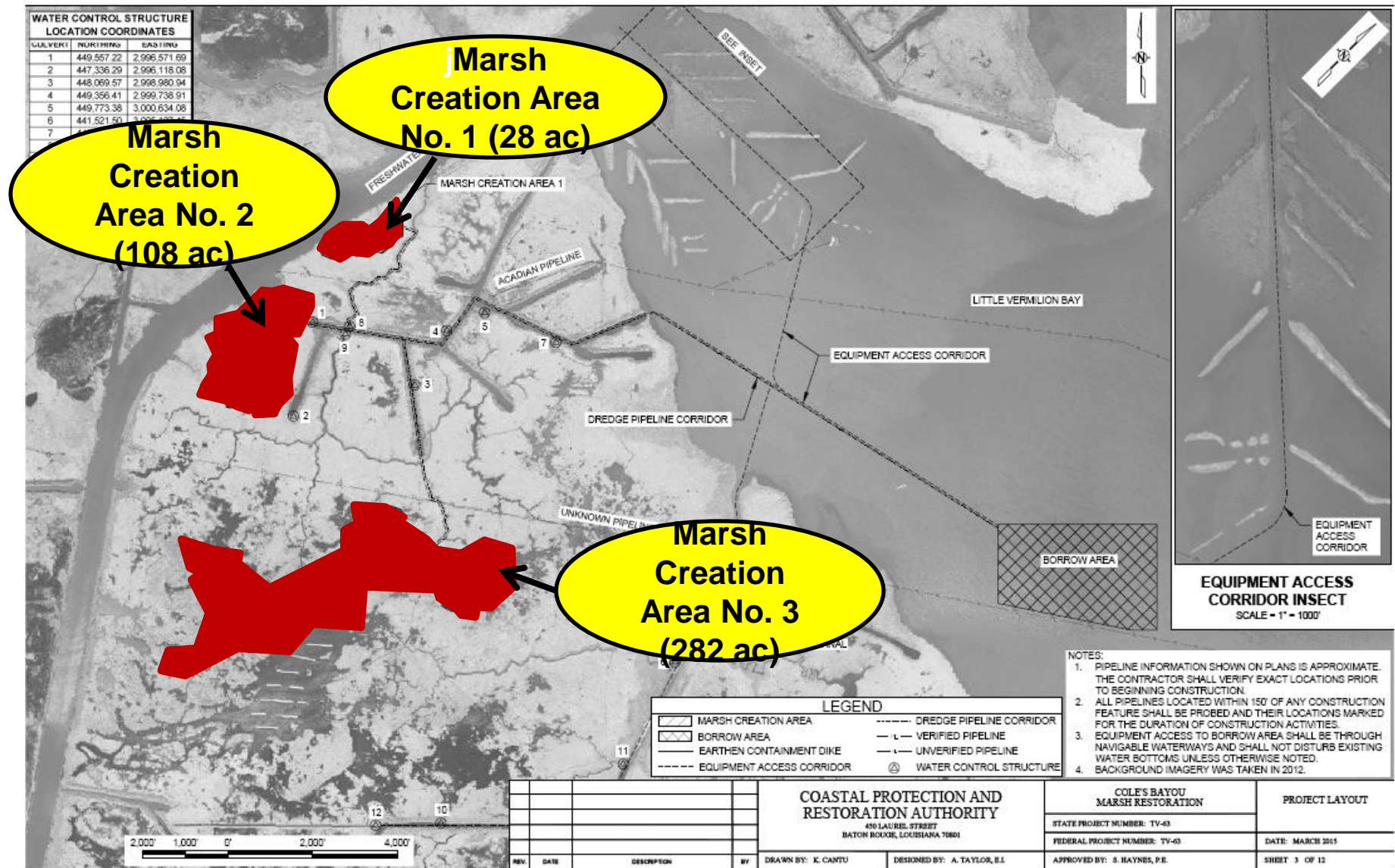
FRESHWATER

**COLES BAYOU
RESTORATION
PROJECT (TV-63)**

MARSH ISLAND

GULF OF MEXICO

Cole's Bayou Marsh Creation (TV-63)



Cole's Bayou Marsh Restoration (TV-63)

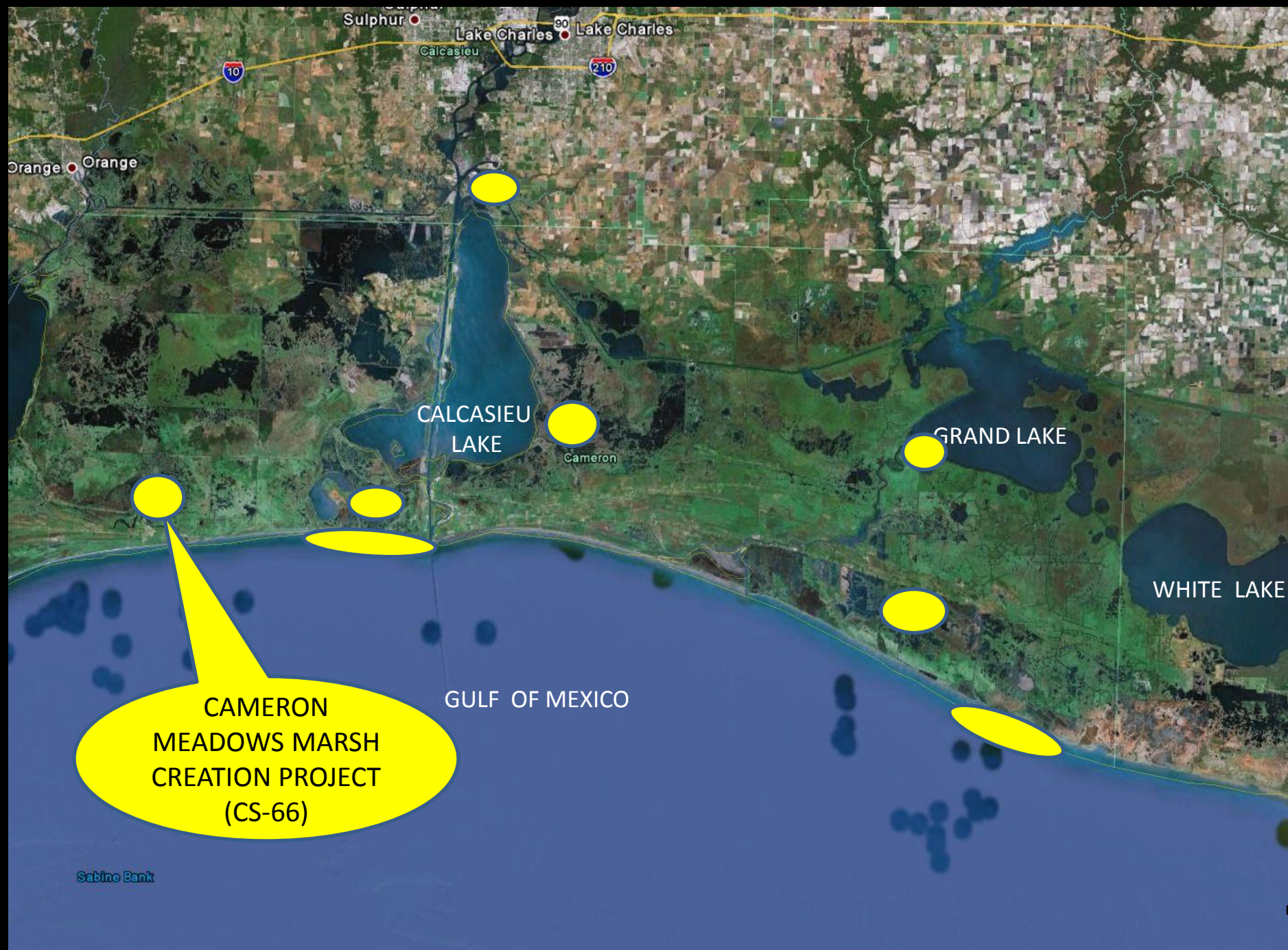
- **Project Features:**

- Benefit 418 acres of marsh with borrow from Vermilion Bay
- Increase freshwater and sediment inflow into interior wetlands by installing a series of culverts (22 – 42" culverts @ 9 locations)

- **Construction Cost:** \$20m (estimated)

- **Project Status:**

- Plans and specs are being finalized
- Anticipate Project Bid: February 2017
- Construction starting: April/May 2017



CAMERON
MEADOWS MARSH
CREATION PROJECT
(CS-66)

GULF OF MEXICO

CALCASIEU
LAKE

Cameron

GRAND LAKE

WHITE LAKE

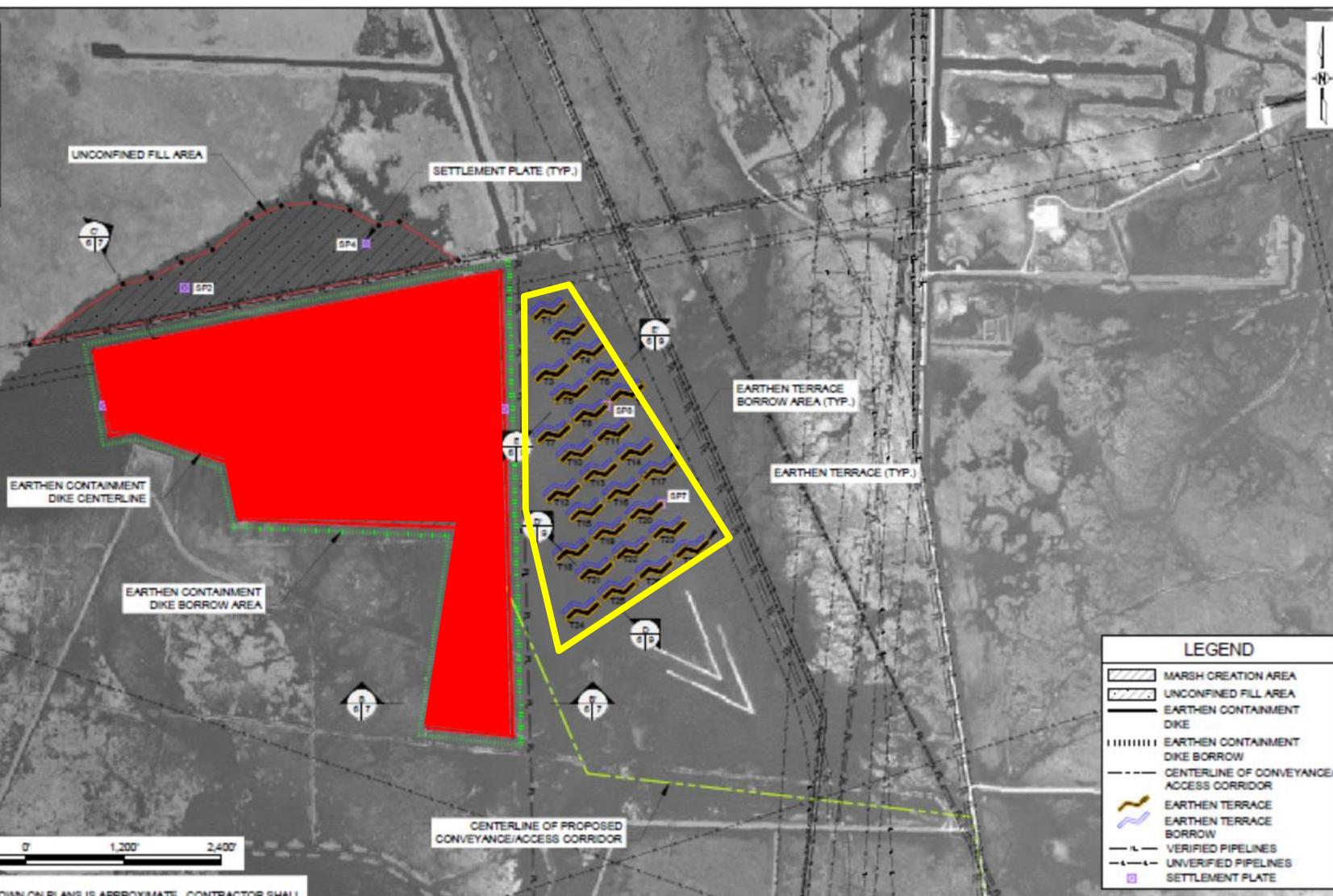
Sabine Bank

POINT	NORTHING	EASTING
1	479.107.91	2.545.055.58
2	481.582.54	2.545.427.78
3	481.669.64	2.542.739.87
4	482.366.09	2.542.585.22
5	482.757.07	2.541.452.77
6	482.897.70	2.541.141.93
7	483.732.57	2.540.944.25
8	484.709.28	2.545.938.90
9	479.004.75	2.546.086.92

POINT	NORTHING	EASTING
1	483,813.42	2,540,153.68
2	484,561.96	2,541,298.22
3	484,632.87	2,541,846.65
4	484,822.84	2,542,018.49
5	484,980.09	2,542,400.70
6	485,363.82	2,542,883.91
7	485,621.39	2,543,244.42
8	485,658.79	2,547,657.45
9	485,466.64	2,544,090.29
10	485,275.92	2,544,445.74
11	485,326.55	2,544,896.14
12	484,843.57	2,545,422.33

POINT	NORTHING	EASTING
SP1	483,063.91	2,541,071.96
SP2	484,507.27	2,542,059.69
SP3	483,390.97	2,542,487.39
SP4	485,055.37	2,544,286.69
SP5	483,026.47	2,545,984.17
SP6	480,111.77	2,545,696.48
SP7	481,859.89	2,547,919.89
SP8	483,057.05	2,547,233.89

SITE	VOLUME (CY)	AREA (ACRES)
WASH CREATION	2,264,252	335
NOVISED DILL	448,604	92
ERRACER	204,326	11



- NOTES:**
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.
 2. ALL PIPELINES LOCATED WITHIN 150' OF ANY CONSTRUCTION FEATURE SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
 3. CONTRACTOR SHALL AVOID EXCAVATION WITH FIFTY FEET (50') OF ALL PIPELINES. DOUBLE-HANDLING OF MATERIAL MAY BE NECESSARY TO CONSTRUCT CONTAINMENT AT THE LOCATIONS.

				COASTAL PROTECTION AND RESTORATION AUTHORITY 430 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMERON MEADOWS MARSH CREATION AND TERRACING		MARSH CREATION AND EARTHEN TERRACE PLAN VIEW	
						STATE PROJECT NUMBER: CS-66			
						FEDERAL PROJECT NUMBER: CS-66		DATE: JULY 2016	
REV	DATE	DESCRIPTION	BY	DRAWN BY: SHANE PAUST		DESIGNED BY: JULIA WALL, E.I.		APPROVED BY: EOGS GULLORY, P.E.	
								SHEET 6 OF 25	

Cameron Meadows Marsh Creation (CS-66)

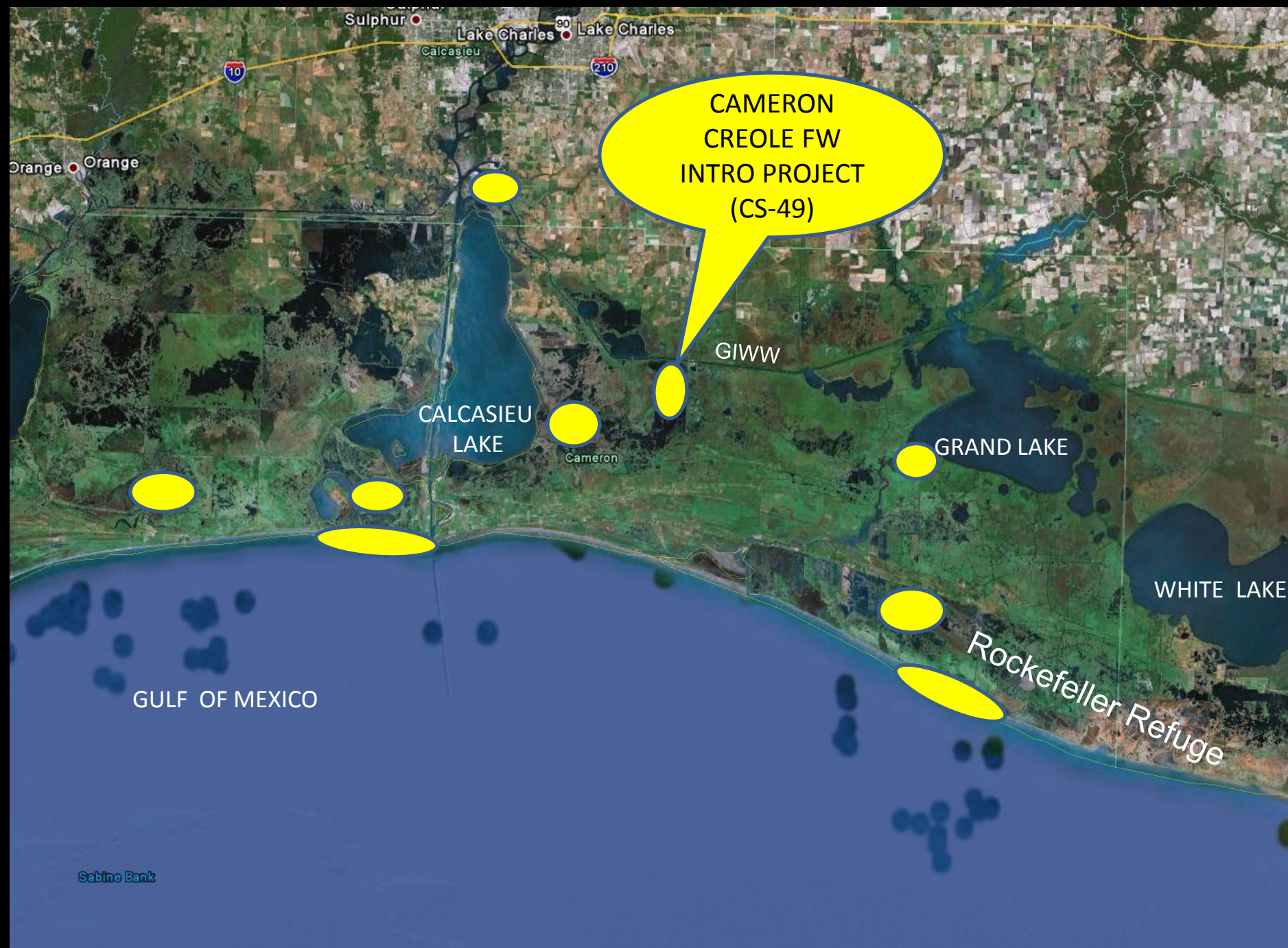
- **Project Features:**

- 400 acres of marsh creation
- 12,150 linear feet of terraces (27 terraces)
- Borrow area – 5 miles south of the project area

- **Construction Cost:** \$ 27.4 million (estimated)

- **Project Status:**

- 95% Design meeting – late Sept/early Oct 2016
- **Planning to request construction funds at December 2016 Tech Committee meeting**



CAMERON
CREOLE FW
INTRO PROJECT
(CS-49)

GIWW

CALCASIEU
LAKE

Cameron

GRAND LAKE

WHITE LAKE

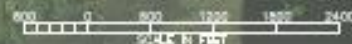
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Rockefeller Refuge

Sabine Bank



CS-49 PROJECT MAP



CS-49 Cameron Creole FW

Introduction

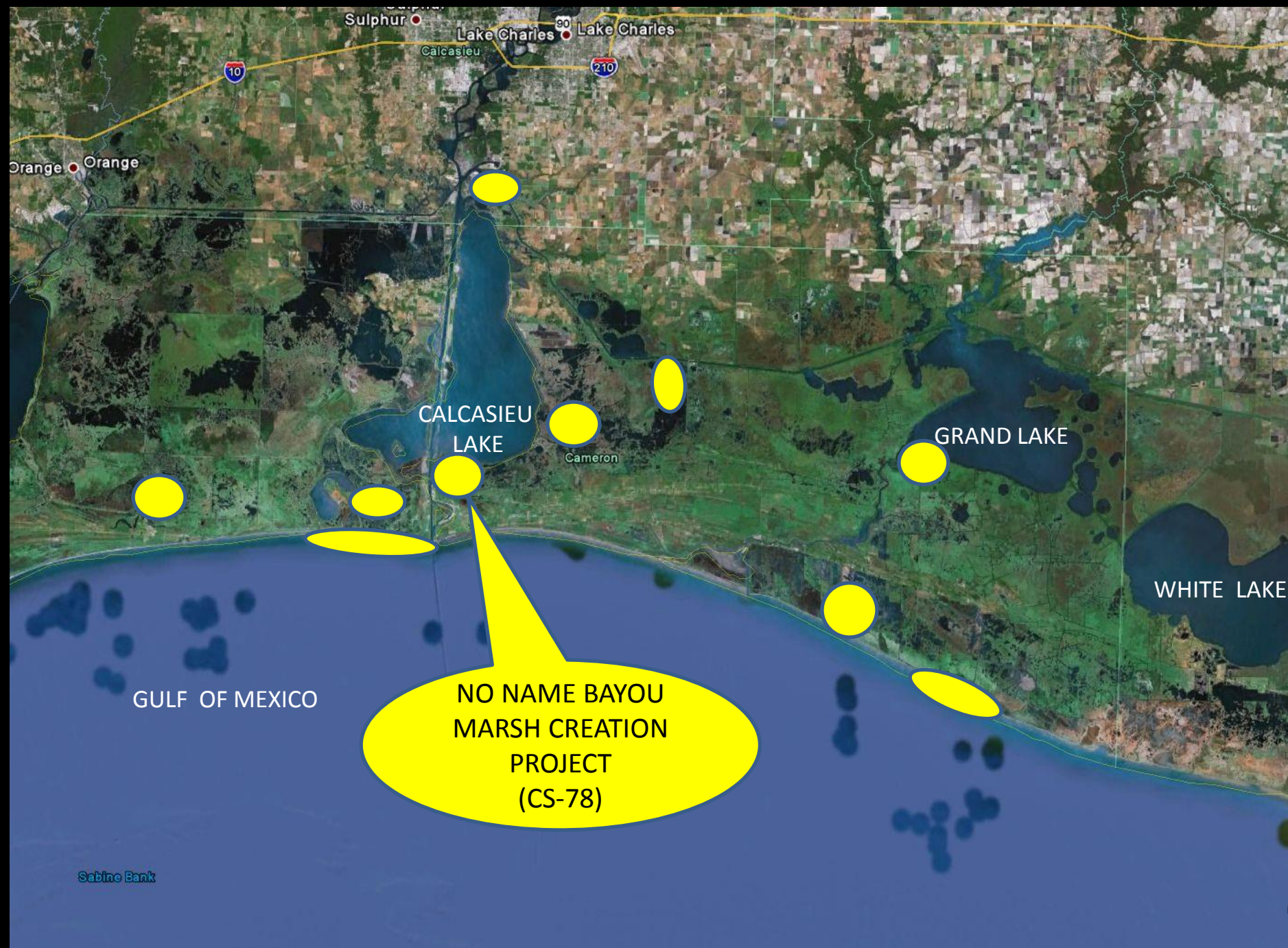
- **Project Features:**

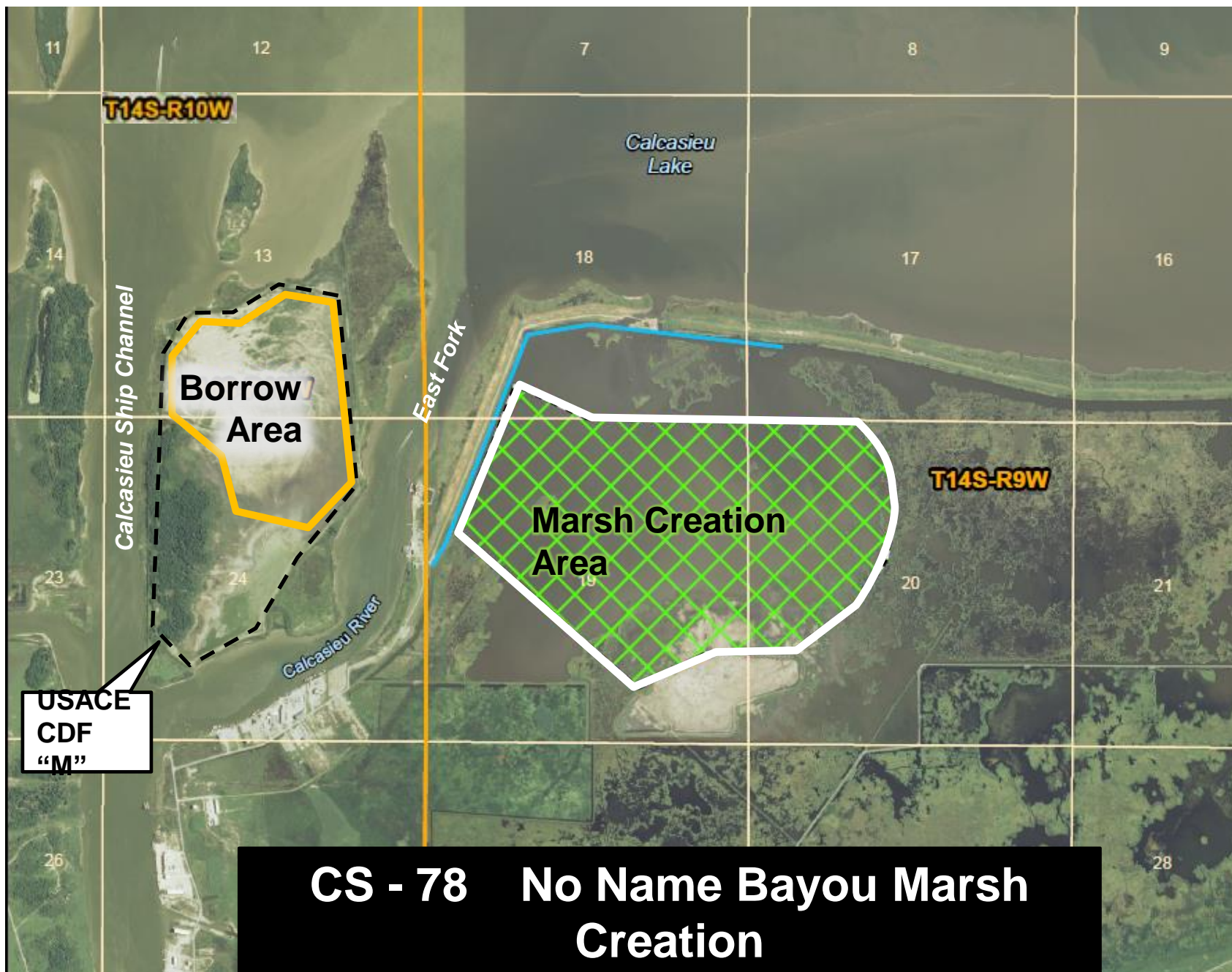
- Placement of sheet pile structure in Monsanto canal (8 - 5' square openings)
- 8,000 feet of GIWW rock shoreline protection
- 120,000 linear feet of terracing

- **Construction Cost:** \$20 million (estimated)

- **Project Status:**

- Project is at 95% design level
- NRCS is reviewing the design features
- Unsure if project will be ready to request construction funding at CWPPRA December 2016 Tech Committee





CS - 78 No Name Bayou Marsh Creation

Cameron Parish, Louisiana

No Name Bayou Marsh Creation (CS-78)

- **Project Features:**

- Benefit 533 acres of marsh
- 3.5 million cubic yards of material from upland disposal site across from East Fork

- **Construction Cost :** \$24 million (estimated)

- **Project Status:**

- Surveys ongoing
- Borings will begin soon & design to follow
- 30% Design meeting: February 2017
- 95% Design meeting: July 2017
- Request construction funds: December 2017



Bayou Tigre Flood Control Projects (TV-67 & 75)

- **Project Goals:** Protect eastern Vermilion Parish from storm surge events
- **Project Features:** Barge Gate & Pump Station
- **Construction Cost :** \$ 12.6 million (est.) (State surplus)
- **Project Status:**
 - Preliminary engineering report complete
 - Project design on hold pending discussions with FEMA regarding level of detail for H&H study with regards to a No Rise Certification.



Franklin Canal Barge Gate Constructed 2014

(Bayou Tigre Gate will be
similar type structure)

SW Louisiana Coastal Projects Summary

Project	Project Name	Status	Const. Cost
CS-33	Cameron Parish Shoreline	Recently Completed (Feb 2014)	\$40 M
CS-29	Black Bayou Culverts	Recently Completed (June 2016)	\$7.9 M
ME-21	Grand Lake Shoreline (Tebo Point)	Recently Bid (June 17, 2016)	\$4 M
CS-59	Oyster Bayou Marsh Creation & Terracing	Recently Bid (August 9, 2016)	\$19 M
CS-54	Grand Bayou Marsh Creation	Projected Bid – Fall 2016	\$24.6 M
ME-20	South Grand Chenier Marsh Creation	Projected Bid – Fall 2016	\$18 M
ME-18	Rockefeller Refuge Shoreline Stabilization	Projected Bid – Spring 2017	\$27.5 M
TV-63	Cole's Bayou Marsh Creation	Projected Bid – Spring 2017	\$20 M
CS-66	Cameron Meadows Marsh Creation & Terracing	Proj. Fund. Request – Dec 2016	\$27.4 M
CS-78	No Name Bayou Marsh Creation	Proj. Fund. Request – Dec 2017	\$24 M
CS-49	Cameron Creole Freshwater Introduction	Proj. Fund. Request – Dec 16/17	\$20 M
TV-67/75	Bayou Tigre Flood Control Project & Pump Station	Engineering & Design	\$12.6 M
	TOTAL ESTIMATED CONSTRUCTION		

Questions?

Contact Information:

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