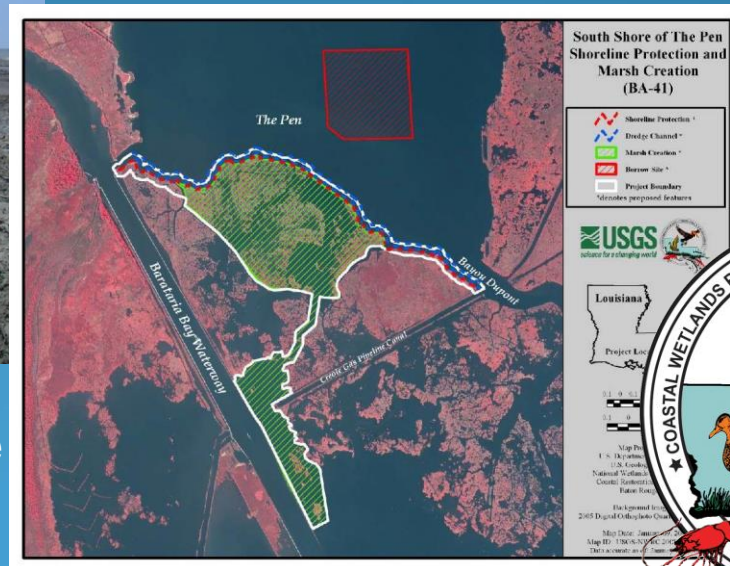


Understanding Land Loss and Restoration in Coastal Louisiana



Increasing the barrier shoreline width with dredged sediment.

CWPPRA Project BA-35

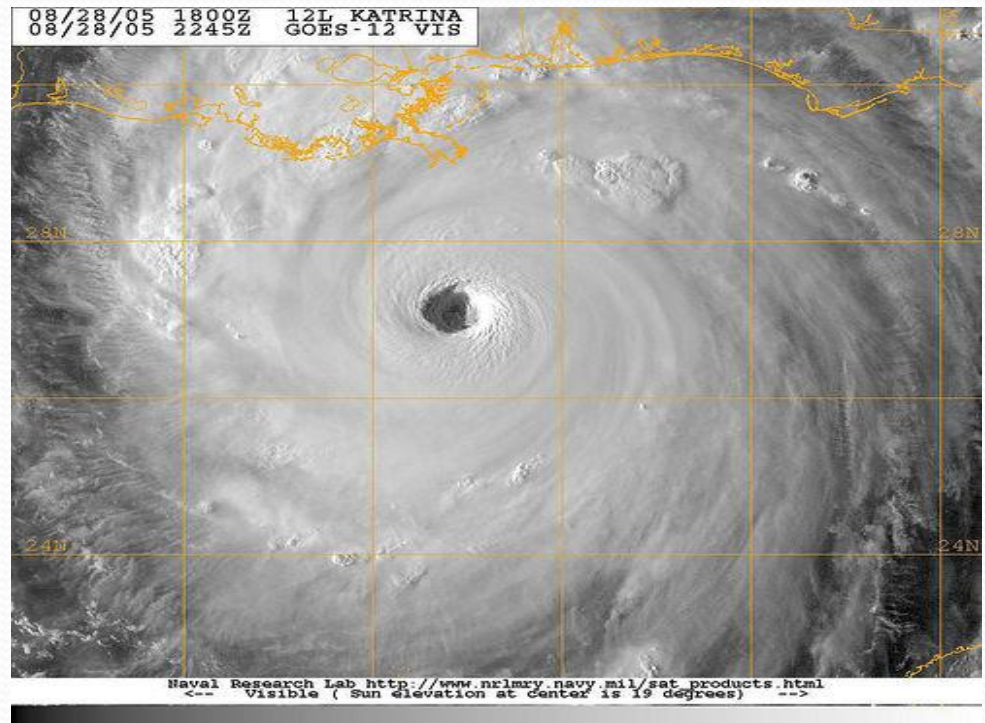


CWPPRA Project BA-41



Natural Causes of Wetland Loss

- Hurricanes
- Subsidence
- Wave erosion
- Sea level rise



Process Alterations Made by Humans

- River levees
- Large water control structures
- Construction of Gulf Intracoastal Waterway
- Ship canal construction
- Access canal construction





Old River Control Structure

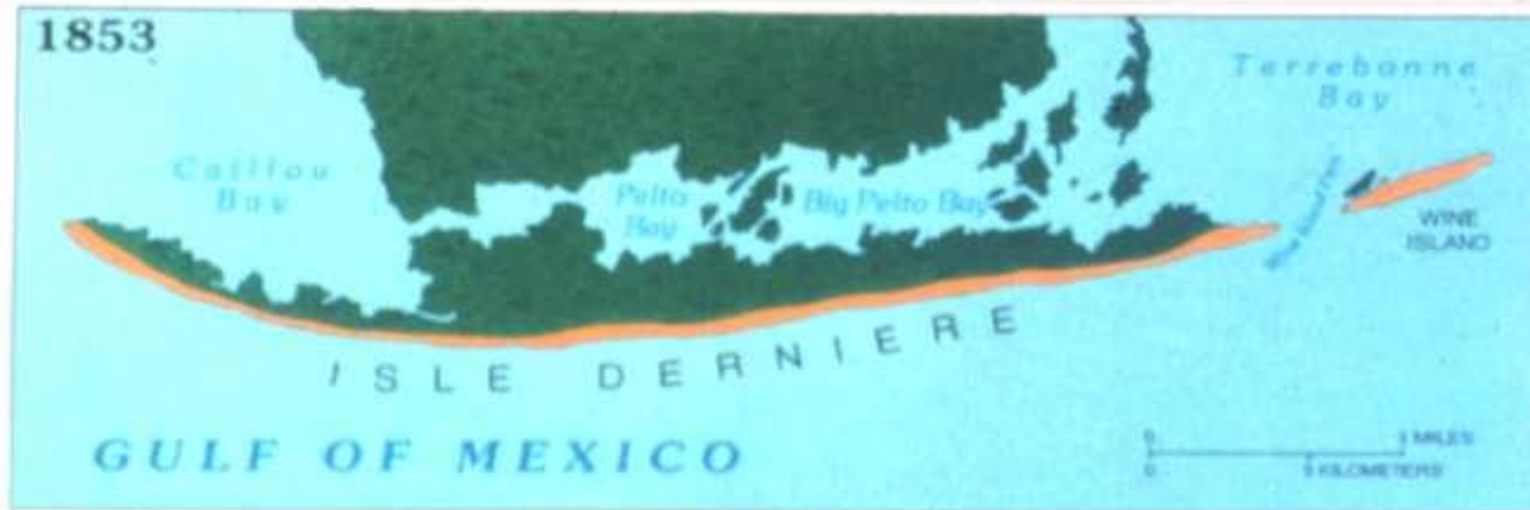


Construction of manmade
waterways – Gulf Intercoastal
Waterway (GIWW)

Levees



HISTORICAL SHORELINE CHANGES ISLES DERNIERES, LOUISIANA



Coastal Restoration Activities

Current Funding Streams for Coastal Restoration.
Louisiana is working to protect its coastline.

CWPPRA

Coastal Wetland Planning, Protection and Restoration Act

- ❖ Also known as CWPPRA (*pronounced quip-ruh*) or Breaux Act
- ❖ Federal Legislation Public Law 101-646 Title III CWPPRA
- ❖ Between \$30M and \$79M per year
- ❖ Has been funding projects for 23 years
- ❖ Since 1990, it has authorized 151 projects benefiting over 112,000 acres of wetland habitat.
- ❖ [www. LACoast.gov](http://www.LACoast.gov)

Coastal Wetlands Planning, Protection and Restoration Act



**U.S. Department of Interior -
U.S. Fish and Wildlife Service**



**U.S. Department of
Commerce – NOAA, National
Marine Fisheries Service**



**U.S. Department of Agriculture
- Natural Resources
Conservation Service**



**US Army Corps
of Engineers®**
New Orleans District

**U.S. Department of the
Army - U.S. Army Corps of
Engineers**

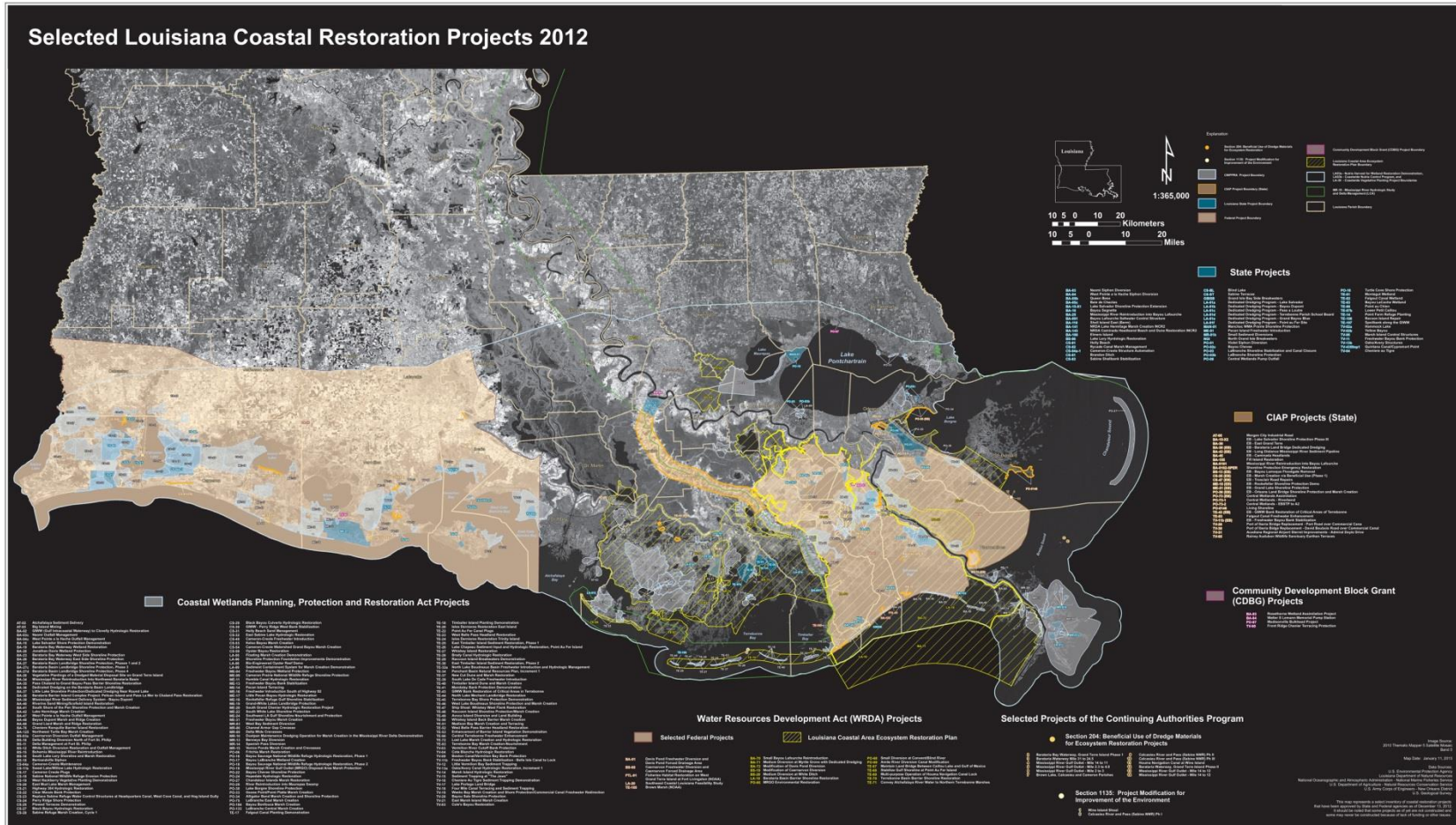


**U.S. Environmental
Protection Agency**



**Louisiana Governor's
Office**

Louisiana Coastal Restoration Projects



CWPPRA Projects

Using a Variety of Techniques for Coastal Restoration

Bayou LaBranche Wetlands

– One of the First CWPPRA Projects

I-10 Near New Orleans



LaBranche Marsh Creation –
Pre Construction



LaBranche Marsh Creation – Post Construction

Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration

BA -35



Increasing the barrier
shoreline width with
dredged sediment.



Mississippi River Sediment Delivery System-Bayou Dupont



Aero
Photo

727.520.8181
www.aerophoto.com

Bayou Dupont

Image # 90902 6039
Date 09.02.09

BA-39



Mississippi River Sediment Delivery System-Bayou Dupont



BA-39

Cutterhead dredge

Mississippi River Sediment Delivery System-Bayou Dupont



BA-39

Pipe jack and bored under the road and railroad to deliver sediment to a marsh receiving area in Plaquemines Parish near the ConocoPhillips plant.

Barataria Barrier Island Complex Project: Pelican Island to Pass La Mer to Chaland Pass Restoration

BA -38

About 2.5 million cubic yards of sand and silt were mined from an offshore borrow area in the Gulf of Mexico to construct the dune and marsh features.



Pipe
Delivering
Sediment

Barataria Barrier Island Complex Project: Pelican Island to Pass La Mer to Chaland Pass Restoration



BA-35
Installation of sand fencing
was concurrent with dune
construction.

Whiskey Island Back Barrier Marsh Creation



TE-50

Approximately 316 acres of back barrier intertidal marsh habitat, 5,800 linear feet of tidal creeks, three 1-acre tidal ponds, and 13,000 linear feet of protective sand dune were created by semi-confined disposal and placement of dredged material.

Whiskey Island Back Barrier Marsh Creation



TE-50

The sediment was dredged from a source in the Gulf of Mexico near the island.



Pecan Island Terracing (ME-14)



Little Vermilion Bay Sediment Trapping (TV-12)



East Timbalier Island Sediment Restoration (TE-25)

- Almost three million cubic yards of sediment were utilized to establish a 200-foot wide dune and a 600-foot wide marsh along the length of the island.
- This created 170 acres of intertidal marsh and is helping to protect thousands of acres of existing fringing marsh to the north.
- To further stabilize the dredged sediments, 13,000 feet of sand fences and approximately 20,000 plugs of marsh grasses were added.





Big Island Mining (AT-03)

West of
Atchafalaya
River in St.
Mary Parish



Big Island Mining (AT-03)

- Approximately 39,000 linear feet, or over 3 million cubic yards, of dredged material were utilized to create five delta lobes totaling 916 acres of marshlands.
- An additional 1200 acres are expected to accrete over the 20 year monitoring life of this project.



Coastwide Nutria Control Program

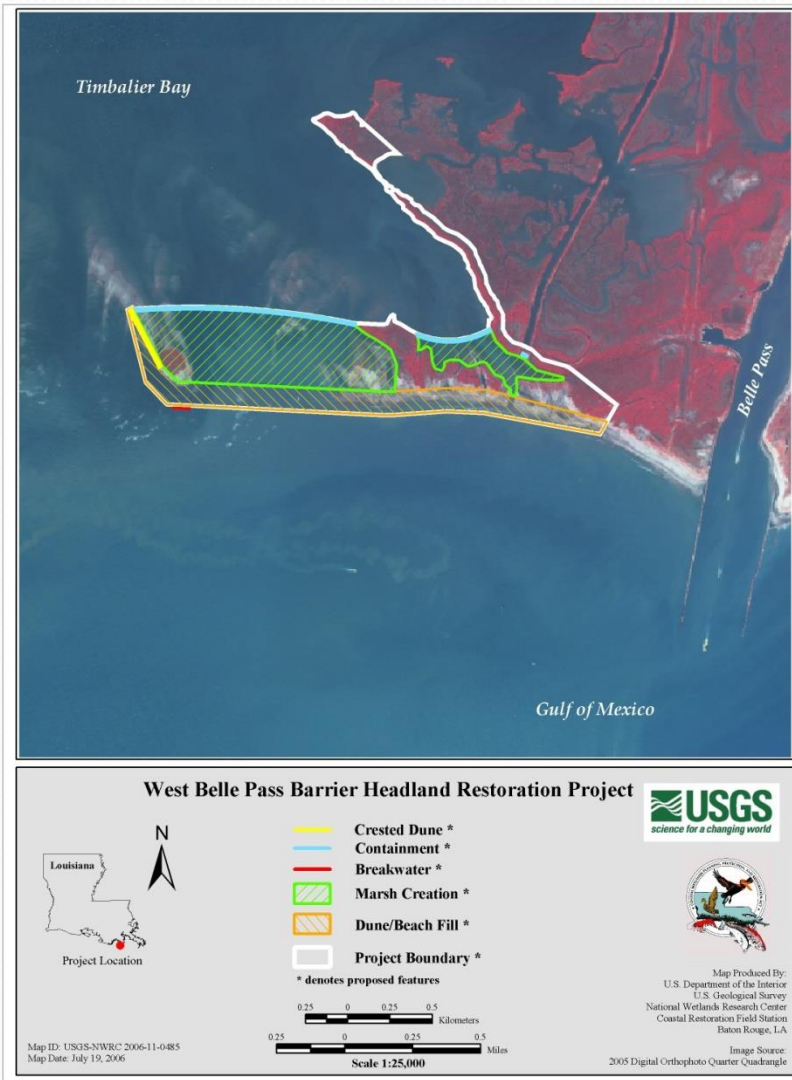
(LA-o3b)



West Belle Pass Barrier Headland Restoration – 100th CWPPRA Project!

This project reestablished the West Belle headland by rebuilding a large portion of the beach, dune, and back barrier marsh that once existed.

Approximately 9,300 feet of beach and dune was rebuilt using nearly 2 million cubic yards of dredged sand, and 150 acres of marsh habitat will be rebuilt.





Various Types of Projects...

- Freshwater / sediment diversion
- Barrier island restoration / shoreline protection
- Vegetative planting
- Hydrologic restoration
- Beneficial use of dredging material
- Sediment Trapping

2014 Recently Completed Wetland Restoration Construction



Completed Construction

Project Name: TE-43 GIWW Bank
Restoration of Critical Areas

- 10,584 lf of bankline protection

Location: Terrebonne Parish

Date Completed: March 24, 2014

Final Construction Cost: \$7.1 Million





Completed Construction

Project Name: LA-39 Coastwide Vegetative Plantings

Program Year	Site Name	Parish	Status	Planting Date	Plant Numbers by Species				Contract Amount
					Smooth cordgrass	California bulrush	Other	Total	
1	Cameron Creole	Cameron	Completed	Spring 2013	49,340			49,340	\$ 379,037
1	South Lake DeCade	Terrebonne	Completed	Fall 2012	27,590	5,740		33,330	\$ 112,349
1	Marsh Island	Iberia	Completed	Spring 2013	7,743	1,166	207	9,116	\$ 97,520
2	The Prairie	St. John the Baptist	Completed	Spring 2014	525	13,040		13,565	\$ 98,498
2	West Little Lake	Lafourche	Awarded	Fall 2014	900	9,670		10,570	\$ 73,190
2	Decade Area	Terrebonne	Pending						
3	The Jaws	Vermilion	Awarded	Fall 2014		10,650		10,650	\$ 71,438
3	Little Vermilion Bay	Vermilion	Reviewing Submittals	Fall 2014		25,900		25,900	\$ 176,153
3	Willow Lake	Cameron	Plan & Spec Review	Fall 2014		17,664	297	17,961	
3	Mud Lake	Cameron	Pending						

CONSTRUCTION UNDERWAY





Completed Construction

Project Name: Coastwide Vegetative Plantings (LA-39)
The Prairie



525 *Spartina alterniflora* 'Vermilion' – trade gallons



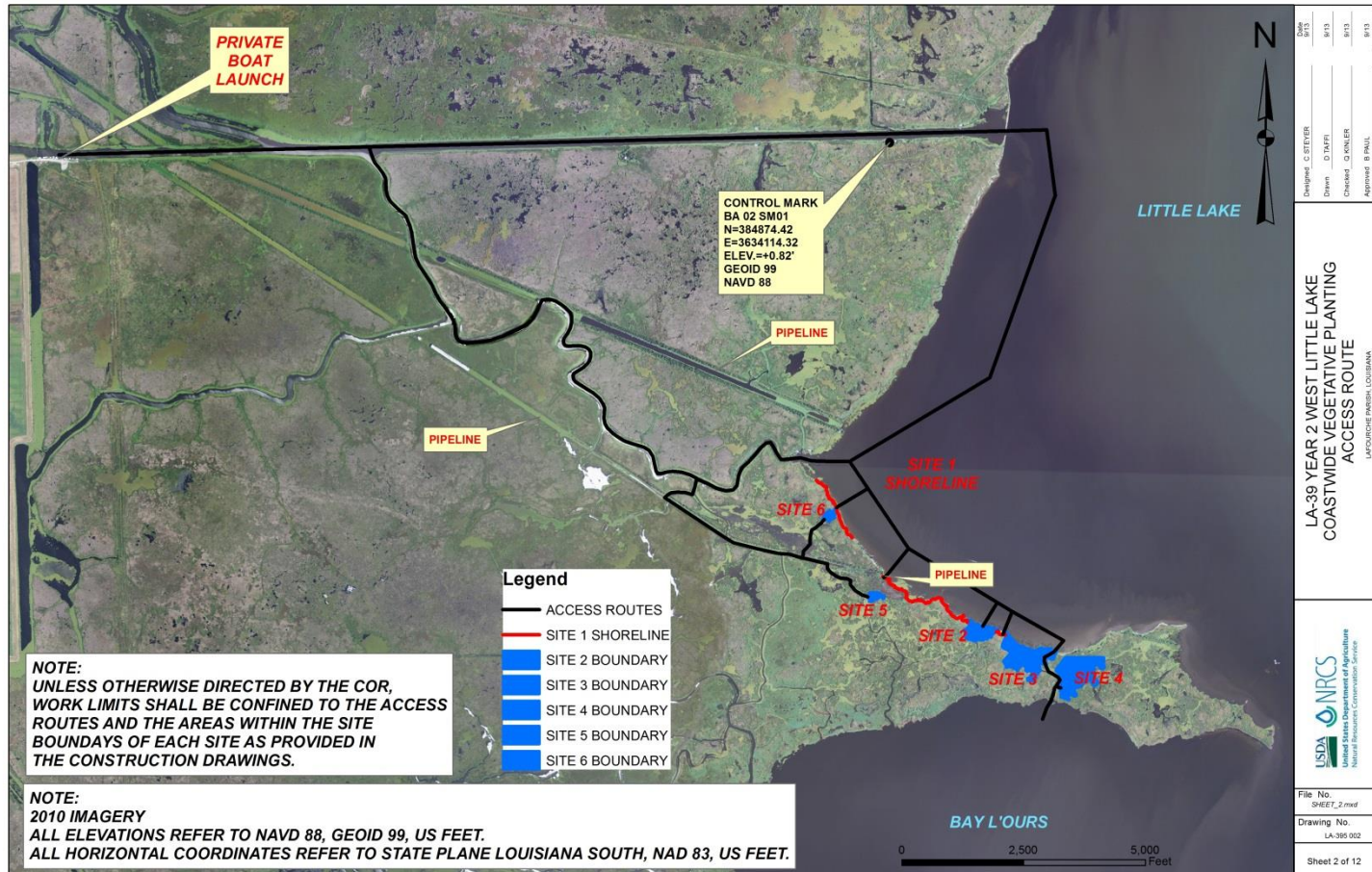
13,040 *Schoenoplectus californicus* –trade gallons





Currently Under Construction

Project Name: Coastwide Vegetative Plantings (LA-39)
West Little Lake



900 *Spartina alterniflora* 'Vermilion' – trade gallons

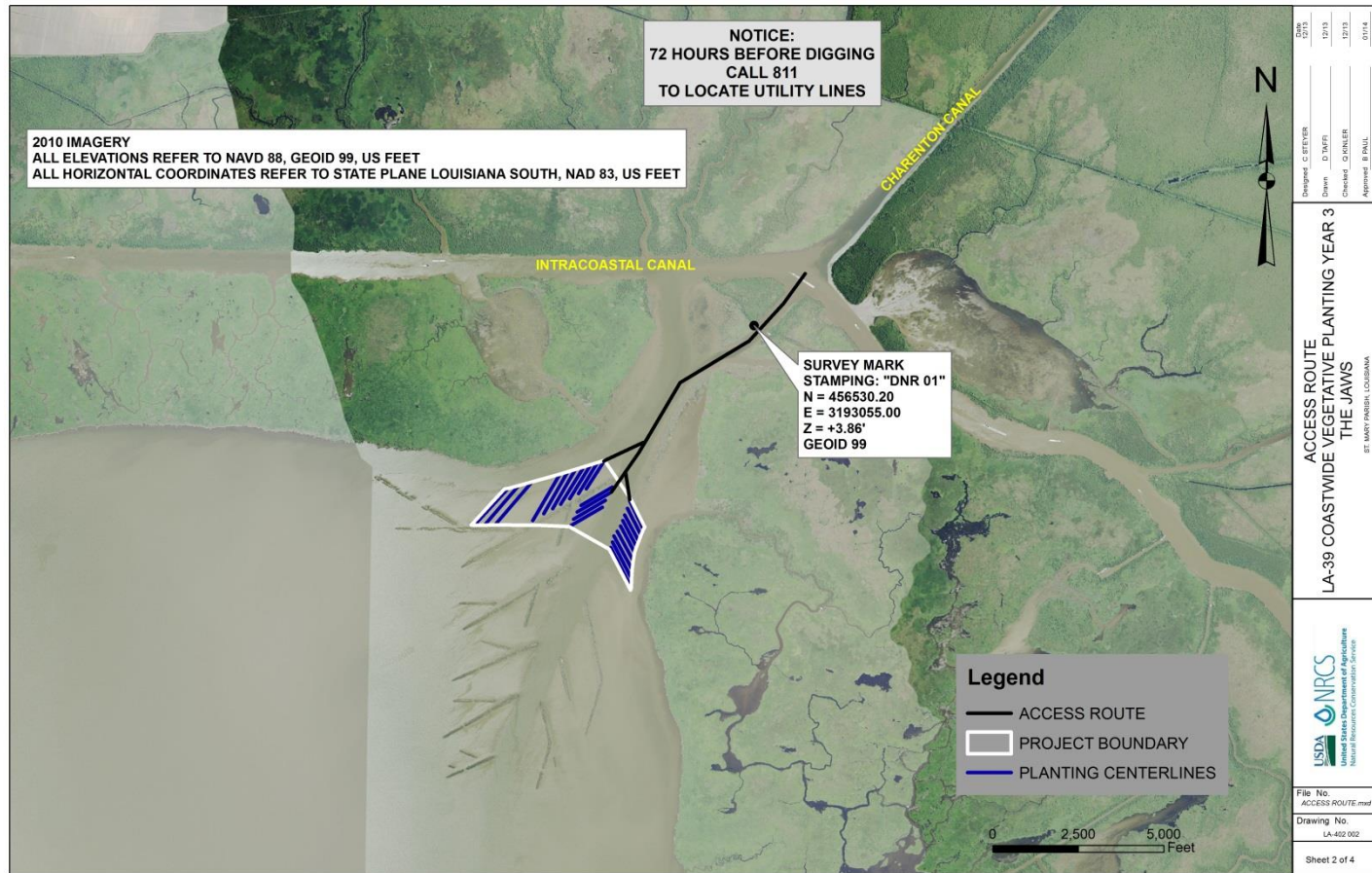
9,670 *Schoenoplectus californicus* –trade gallons





Currently Under Construction

Project Name: Coastwide Vegetative Plantings (LA-39)
The Jaws



10,650 *Schoenoplectus californicus* –trade gallons





Currently Under Construction

Project Name: Coastwide Vegetative Plantings (LA-39)
Little Vermilion Bay



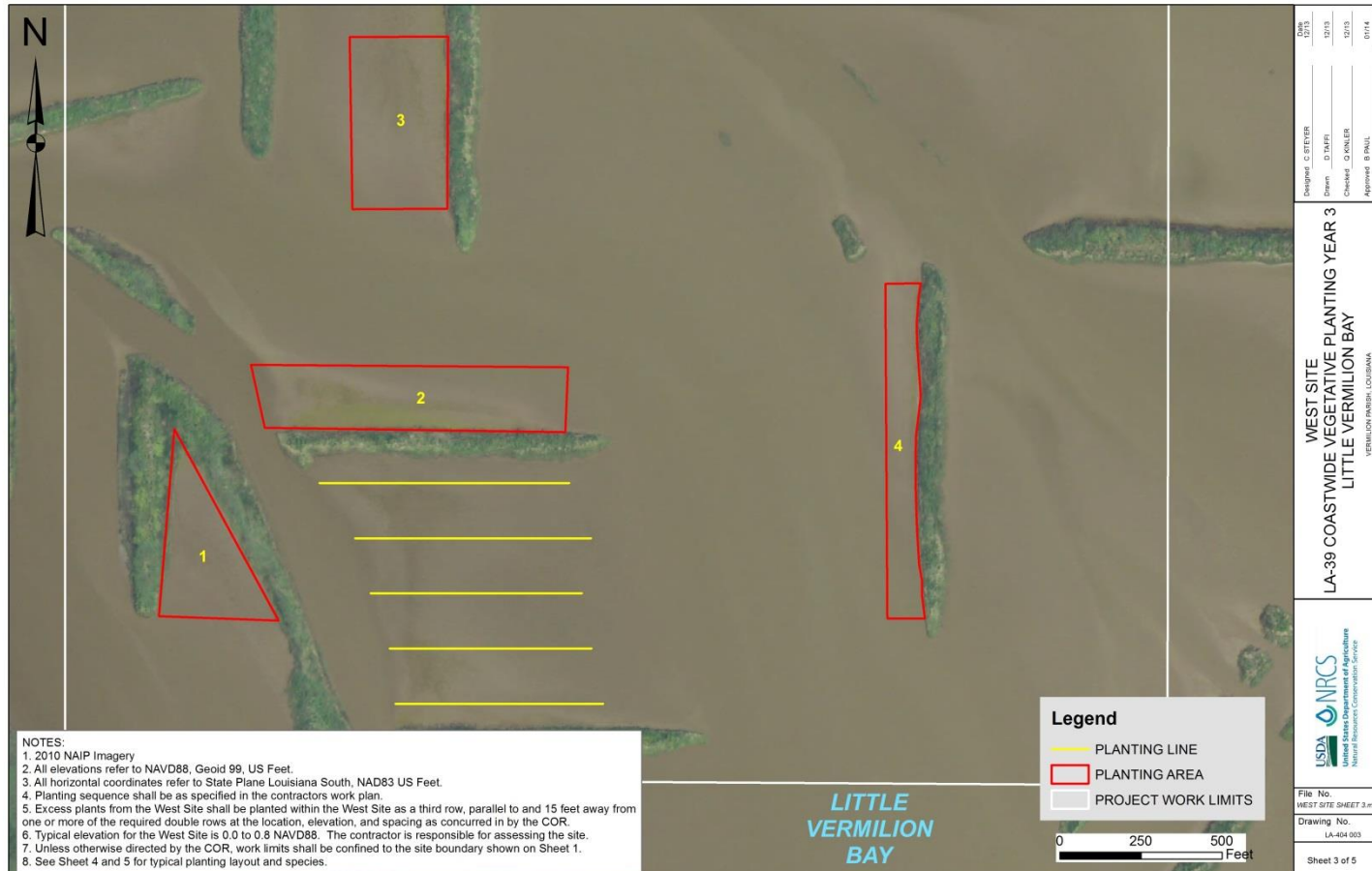
2,500 *Schoenoplectus californicus* –trade gallons





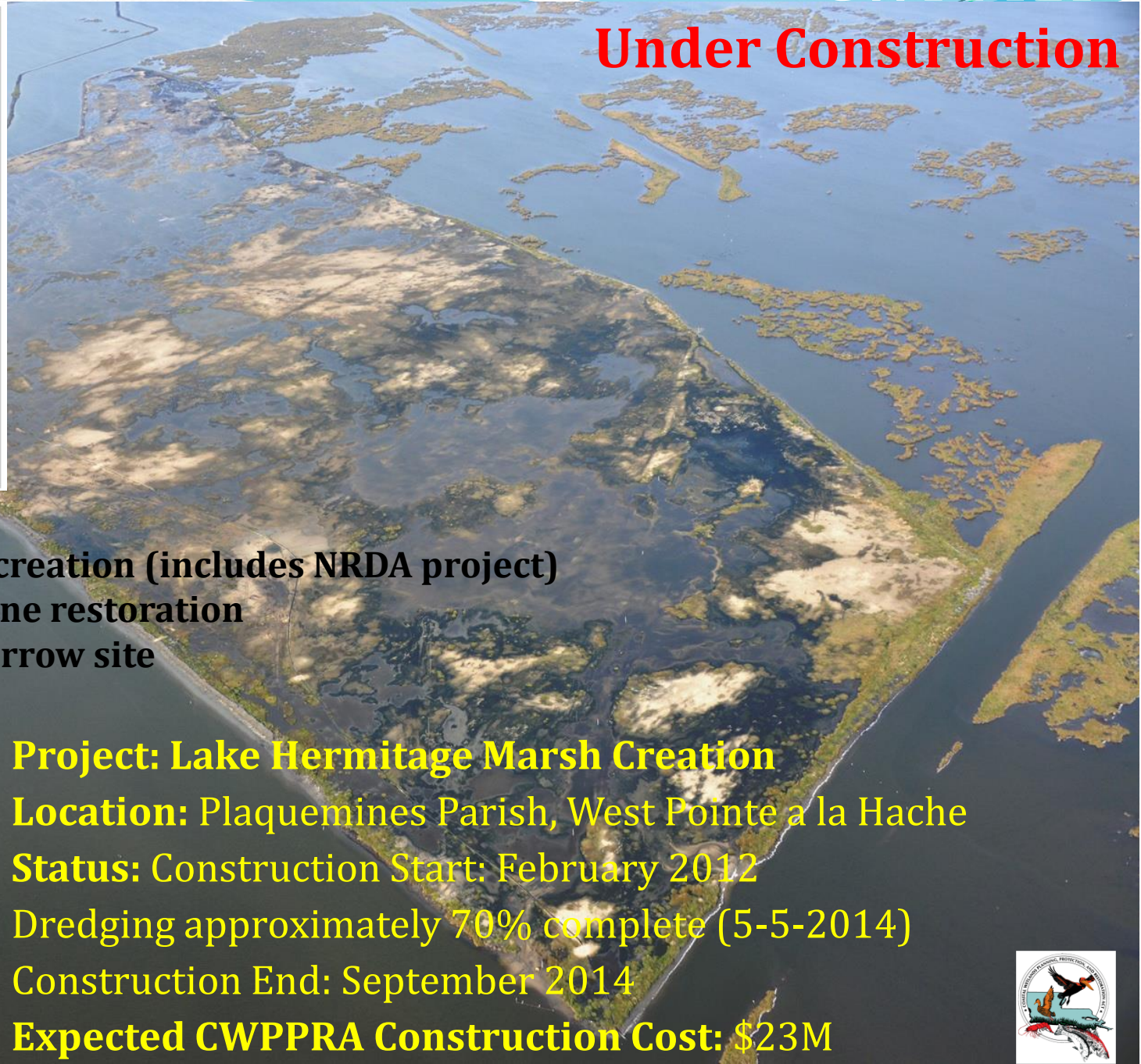
Currently Under Construction

Project Name: Coastwide Vegetative Plantings (LA-39)
Little Vermilion Bay



23,400 *Schoenoplectus californicus* –trade gallons



An aerial photograph of a construction site for a marsh. The image shows a large body of water with several smaller, irregularly shaped land parcels or islands. The water is dark, and the land areas are covered with green vegetation. A yellow text overlay is positioned on the right side of the image, providing project details. The text is in a bold, sans-serif font and is color-coded: 'Project:' is in red, 'Location:' is in blue, 'Status:' is in green, 'Dredging' is in orange, 'Construction End' is in purple, and 'Expected CWPPRA Construction Cost' is in pink. The background image shows the progress of the construction, with some areas appearing to be newly created or reclaimed land.

Project: Lake Hermitage Marsh Creation

Location: Plaquemines Parish, West Pointe a la Hache

Status: Construction Start: February 2012

Dredging approximately 70% complete (5-5-2014)

Construction End: September 2014

Expected CWPPRA Construction Cost: \$23M



Fill Area A – complete
367 acres



Lake Hermitage Marsh Creation BA 42

Image # 140415 2010
Aero Date : 04.15.2014
Photo 888.542.0231

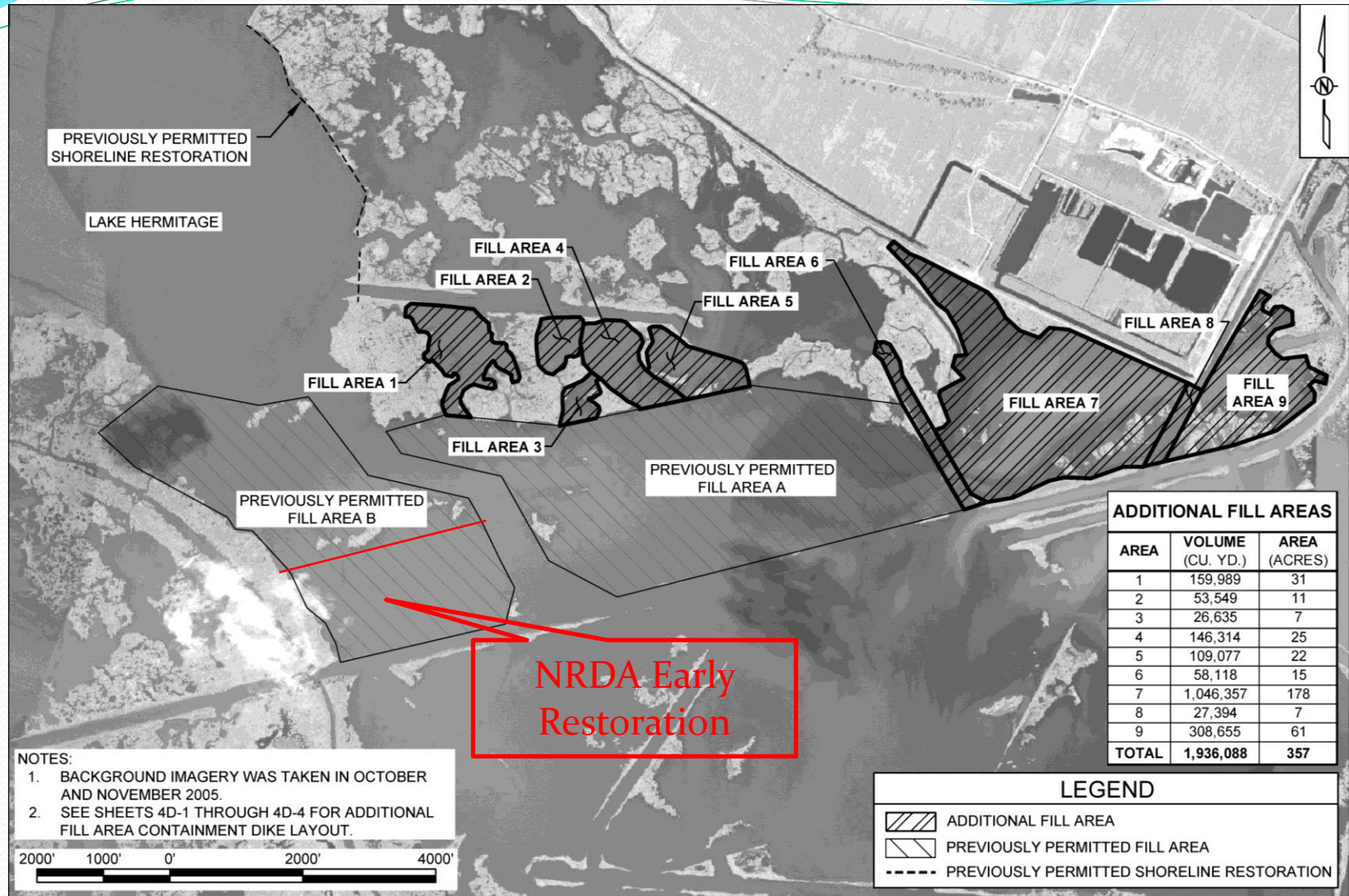


Fill Area B - 283 acres
(NRDA - 104 acres)
95% complete



Lake Hermitage Marsh Creation BA 42

Image # 140415 2011
Aero Date : 04.15.2014
Photo 888.542.0231



Project Modifications:

- 1) Terrace field – now 104-acre NRDA Early Restoration marsh creation site
- 2) Change Order #3 – 246 acres of marsh creation – Fill Areas 7, 8, and 9

Currently Under Construction

Project Name: Bayou Dupont Marsh and Ridge Creation (BA-48)

Status: In construction (with LDST)

- Mississippi River dredging anticipated to begin in October
- Construction completion projected for Fall 2015

Expected Construction Cost: \pm \$35M



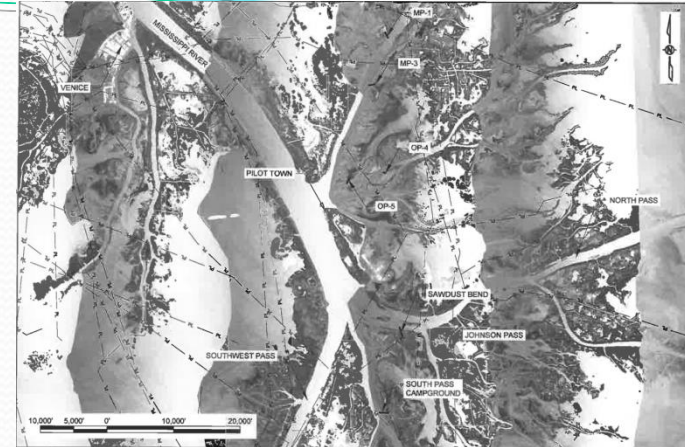
Currently Under Construction

Project Name: Delta-Wide Crevasses Project
(MR-09)

Location: Plaquemines Parish, Mississippi
River Delta

Status: Third and final construction event underway of 7 crevasse locations.
Start: 3/05/14, Expected Completion: 6/25/14

Expected Construction Cost: This event: \$795,680
Prior 2 events: \$ \$1,413,364



UNDER CONSTRUCTION UNTIL



Currently Under Construction

Project Name: Delta-Wide Crevasses Project (MR-09)

Location: Plaquemines Parish, Mississippi River Delta

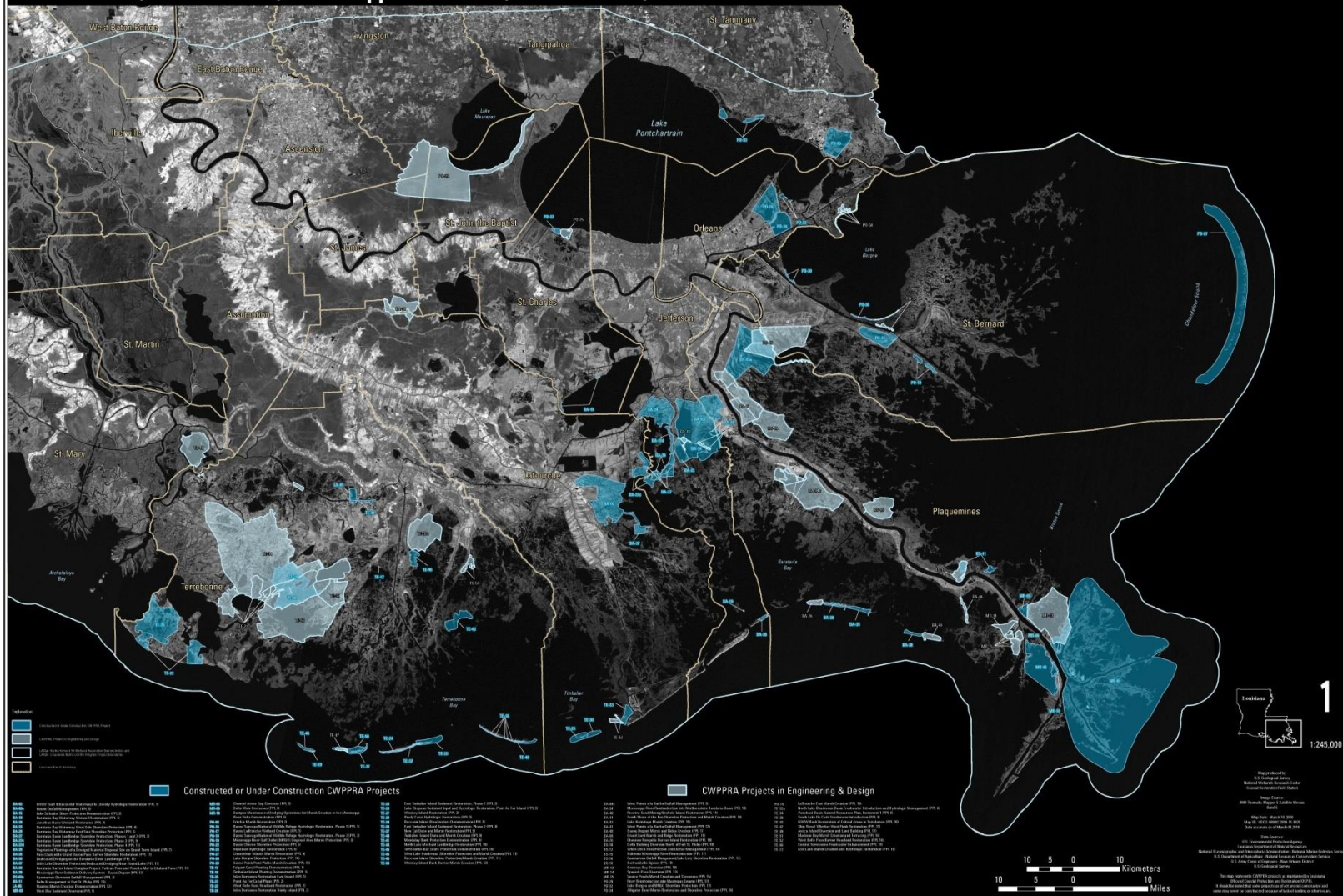
Status: Aerial and elevation surveys show the Project has created 499 acres of land for fresh marsh, as intended from the previously constructed components.

Table 1. Land area (acres) for 22 crevasses in the MR-09 project area (source: Louisiana Office of Coastal Protection and Restoration, 2009 OMM Report for Delta Wide Crevasses).

Crevasse	2001	2002	2007	Change	Relative gain/loss	Rate (acres/year)
6	116	150	171	55	47.4%	7.9
7	24	28	30	6	25.0%	0.9
8	5	8	10	5	100%	0.7
9	39	45	45	6	15.4%	0.9
11	116	131	157	41	35.3%	5.9
12	21	28	40	19	90.5%	2.7
15	19	26	26	7	36.8%	1.0
20	28	28	39	11	39.3%	1.6
24	3	4	5	2	66.7%	0.3
27	7	10	29	22	314.3%	3.1
31	67	90	191	124	185.1%	17.7
36	125	136	181	56	44.8%	8.0
38	102	99	181	79	77.5%	11.3
45	47	51	54	7	14.9%	1.0
47	3	5	9	6	200%	0.9
51	21	24	23	2	9.5%	0.3
53	33	36	15	-18	-54.5%	-2.6
54	41	47	57	16	39.0%	2.3
81	10	.	29	19	190%	2.7
CO-2	2	7	19	17	850%	2.4
NC-1	5	6	11	6	120%	0.9
NC-3	6	11	17	11	183.3%	1.6
Totals	840	970	1339	499	59.4%	71.3
Average	38	46	61	23	59.4%	3.2

UNDER CONSTRUCTION







Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Project Priority Lists 1 - 19 Projects in Atchafalaya, Calcasieu-Sabine, Mermentau, and Teche-Vermilion Basins



Coastal Impact Assistance Program

- ❖ Also known as CIAP (*pronounced sea-app*)
- ❖ Louisiana Coastal Impact Assistance Program (CIAP) plan proposed projects within the 19 coastal parishes.
- ❖ The CIAP Plan was approved by the U.S. Mineral Management Service (MMS) before Louisiana received any funding.
- ❖ CIAP was authorized by the US Congress in Section 384 of the Energy Policy Act of 2005, providing an estimated, \$510 million in federal monies to Louisiana and its coastal parishes
- ❖ The state's funding portion is 65 percent while the parishes will be allotted 35 percent.
- ❖ It is administered by the State of Louisiana under the Coastal Protection and Restoration Authority (CPRA)

US Army Corp of Engineers

- Davis Pond Freshwater Diversion Project
- Louisiana Coastal Area Ecosystem Restoration Study was started 1999.
- Caernarvon Freshwater Diversion Project
- LaCPR



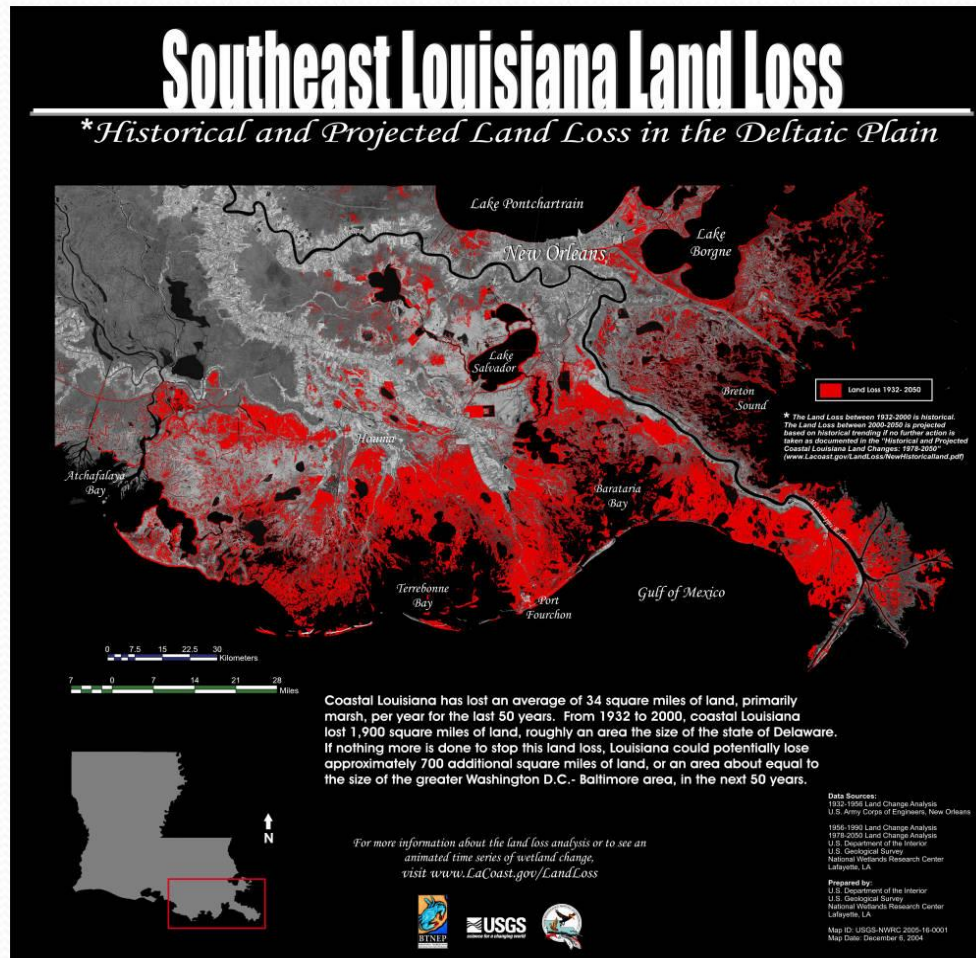


If nothing is done...

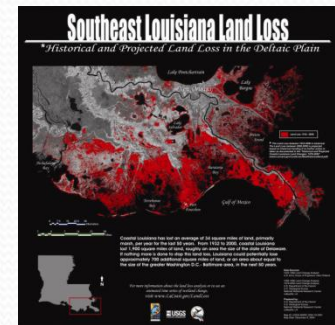
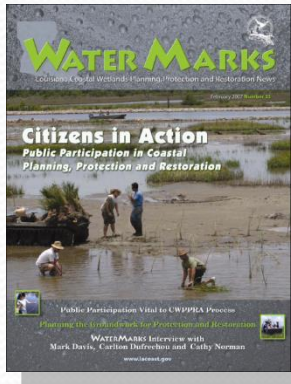
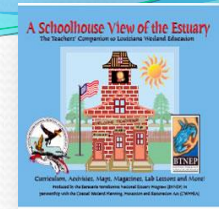
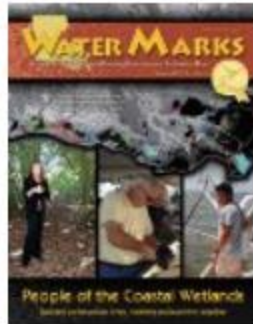
- Predicted coastal wetland loss in 50 years with no action is

430,000 acres

Map of Projected Loss



How can you help spread the word?





CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

LaCoast.gov

MANAGING AGENCIES

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About Projects Newsflash LUCC Calendar Publications Education Get Involved



Caernarvon Diversion Outfall Management BS-03a

Barrier Islands - "A Place"



Watch this video to learn how important barrier islands are to coastal Louisiana.

What is CWPPRA?

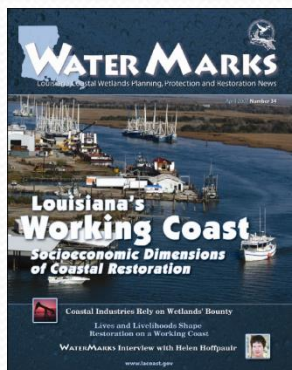
CWPPRA provides funding for Louisiana's coastal restoration. The Coastal Wetlands Planning, Protection and Restoration Act, (CWPPRA pronounced kwip-ruh), is federal legislation enacted in 1990 that is designed to identify, prepare, and fund construction of coastal wetlands restoration projects. These projects provide for the near-term conservation of wetlands. Read more...

CWPPRA Projects

CWPPRA coastal restoration projects are highlighted below. Click for a larger map.

Upcoming Events

- 07/16/2014 Coastal Protection and Restoration Authority Board, Buras, LA
- 08/06/2014 Governor's Advisory Commission Lake Charles, LA
- 08/20/2014 Coastal Protection and Restoration Authority Board Baton Rouge, LA





Land Marks

www.LaCoast.gov

CELEBRATING SUCCESS IN COASTAL RESTORATION

Why Save Coastal Louisiana?

IN THIS ISSUE...

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