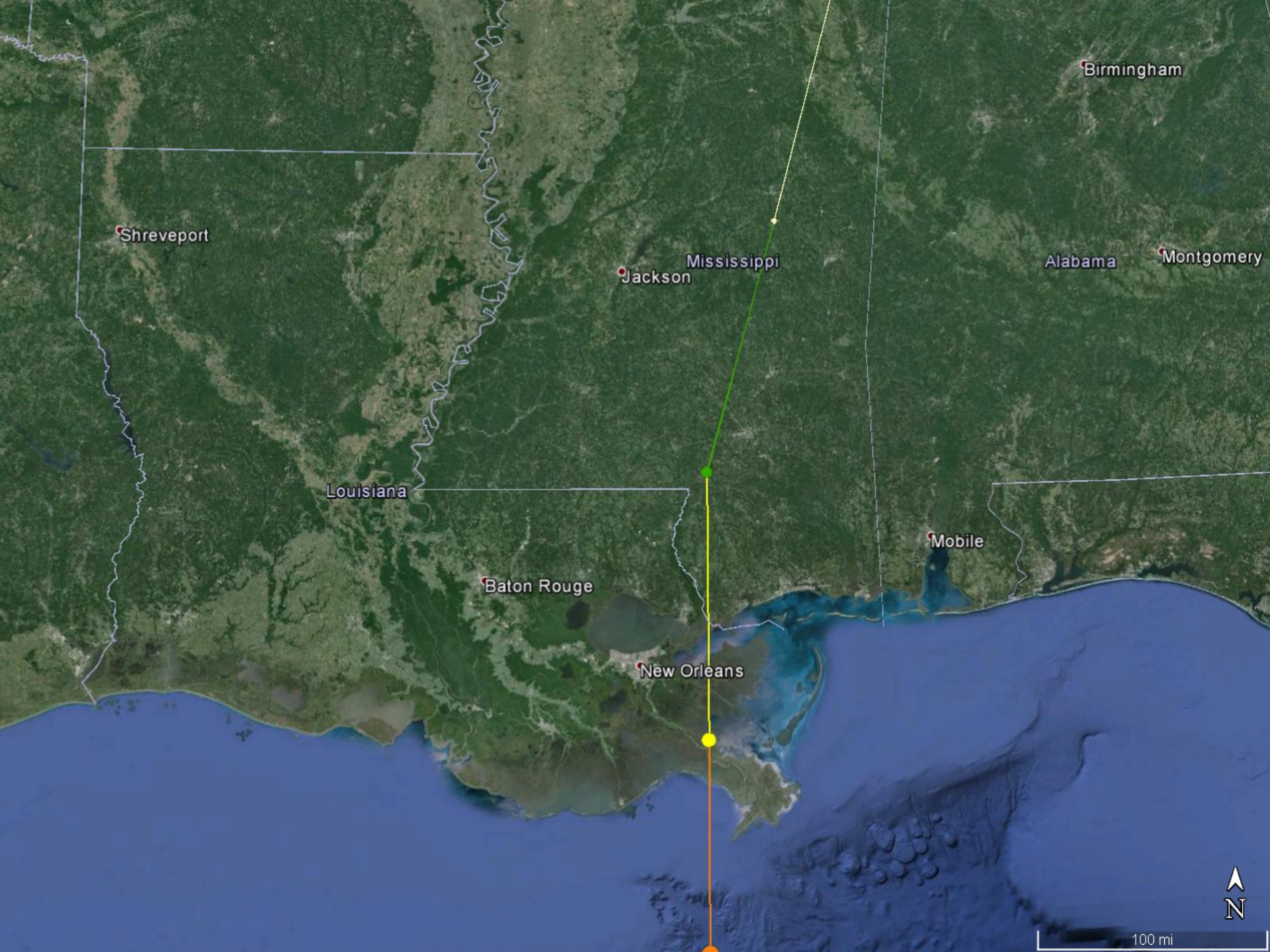
Reestablishing Defenses:

Restoration of Louisiana's Barrier Islands Since Hurricane Katrina

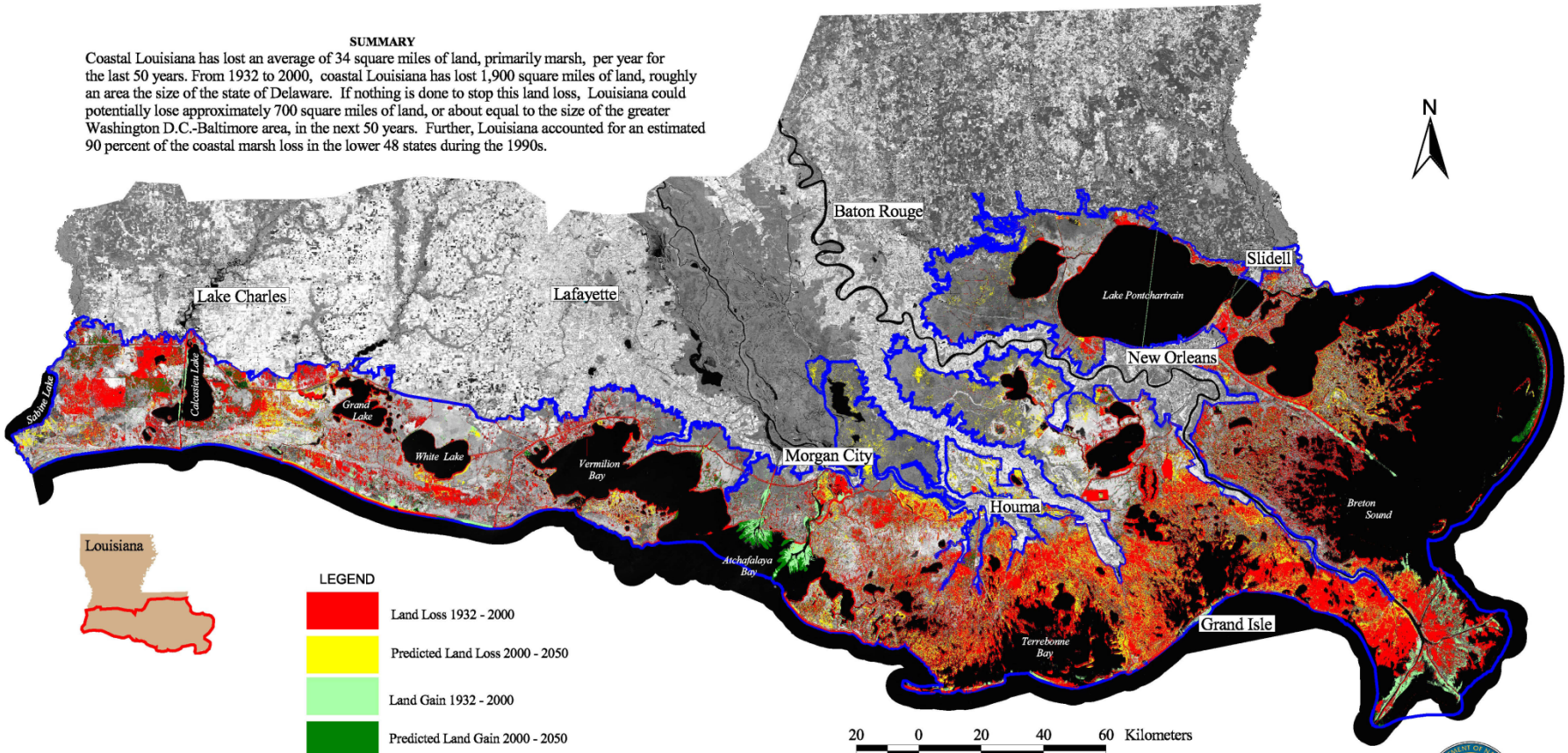
Mel Landry – NOAA Restoration Center


Birmingham
Shreveport
Mississippi
Jackson
Alabama
Montgomery
Louisiana
Mobile
Baton Rouge
New Orleans
N
100 mi

100+ Years of Land Change for Coastal Louisiana

SUMMARY

Coastal Louisiana has lost an average of 34 square miles of land, primarily marsh, per year for the last 50 years. From 1932 to 2000, coastal Louisiana has lost 1,900 square miles of land, roughly an area the size of the state of Delaware. If nothing is done to stop this land loss, Louisiana could potentially lose approximately 700 square miles of land, or about equal to the size of the greater Washington D.C.-Baltimore area, in the next 50 years. Further, Louisiana accounted for an estimated 90 percent of the coastal marsh loss in the lower 48 states during the 1990s.

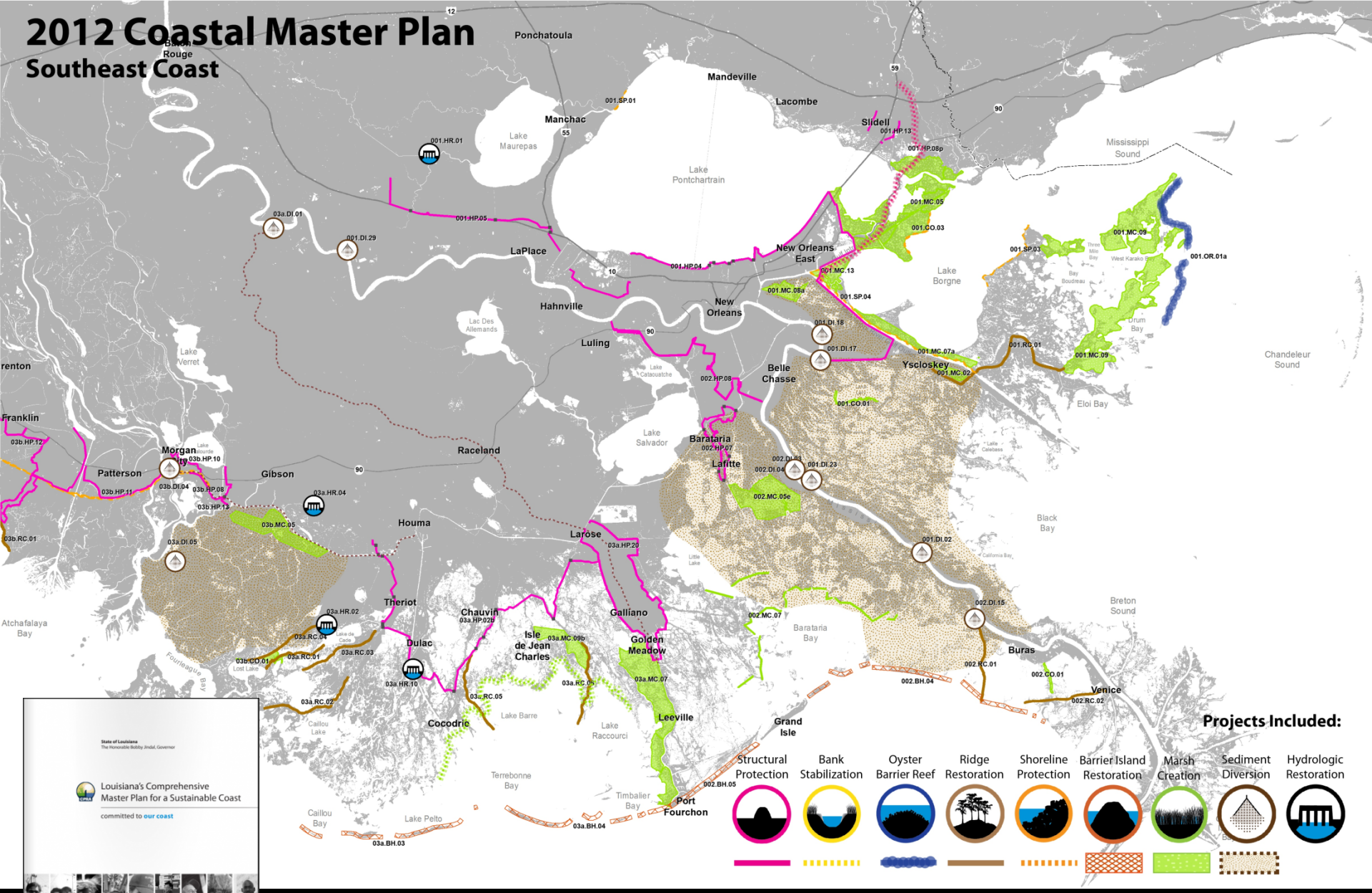


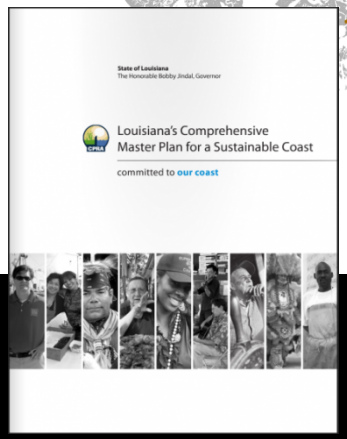
Background is 2000 Thematic Mapper panchromatic band.

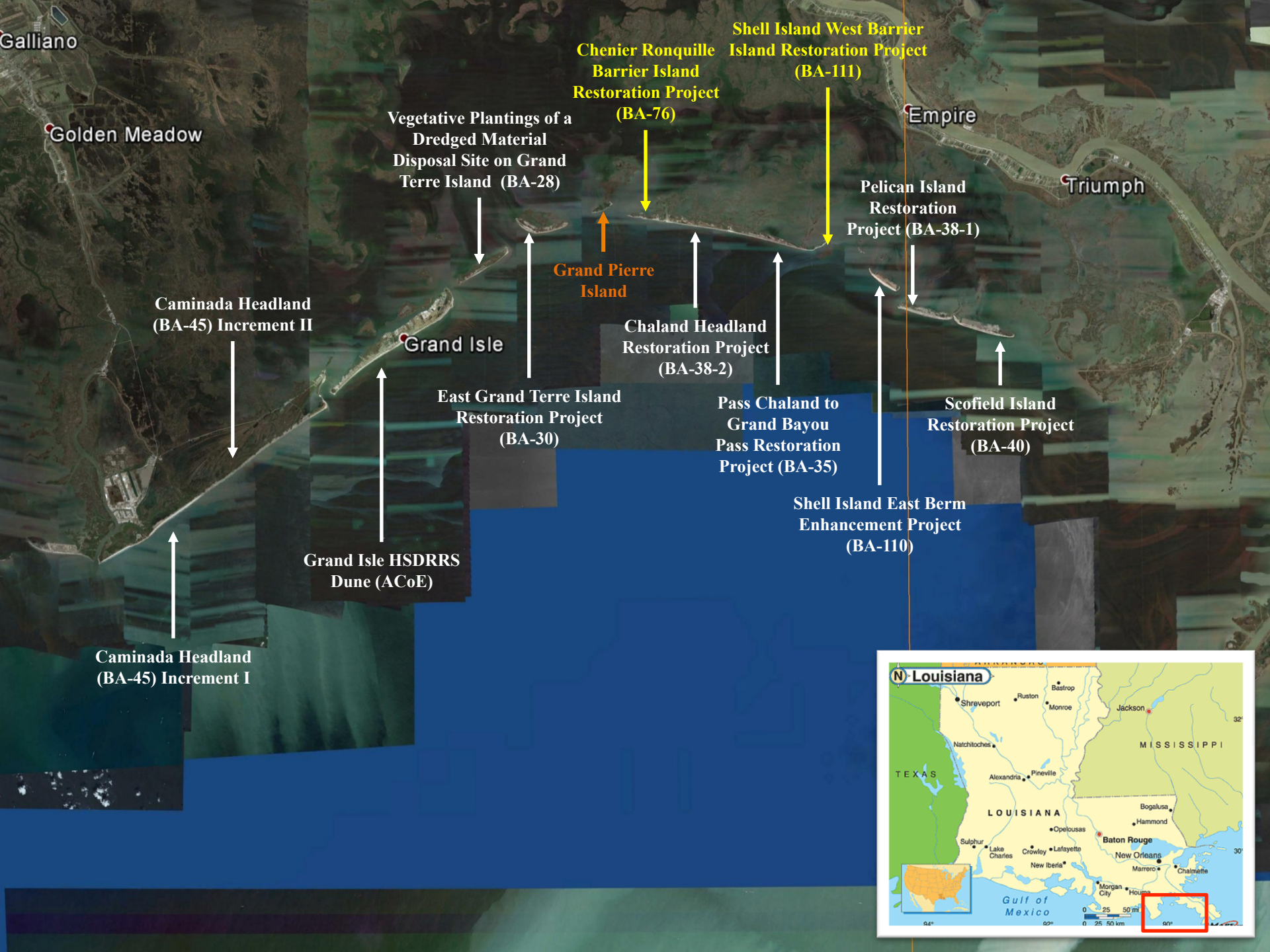
Prepared by:
U.S. Geological Survey
National Wetlands Research Center
Lafayette, LA

Map ID: USGS-NWRC 2003-03-085

2012 Coastal Master Plan
Southeast Coast






Galliano
Golden Meadow
Grand Isle
Empire
Triumph
Shell Island West Barrier Island Restoration Project (BA-111)
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N
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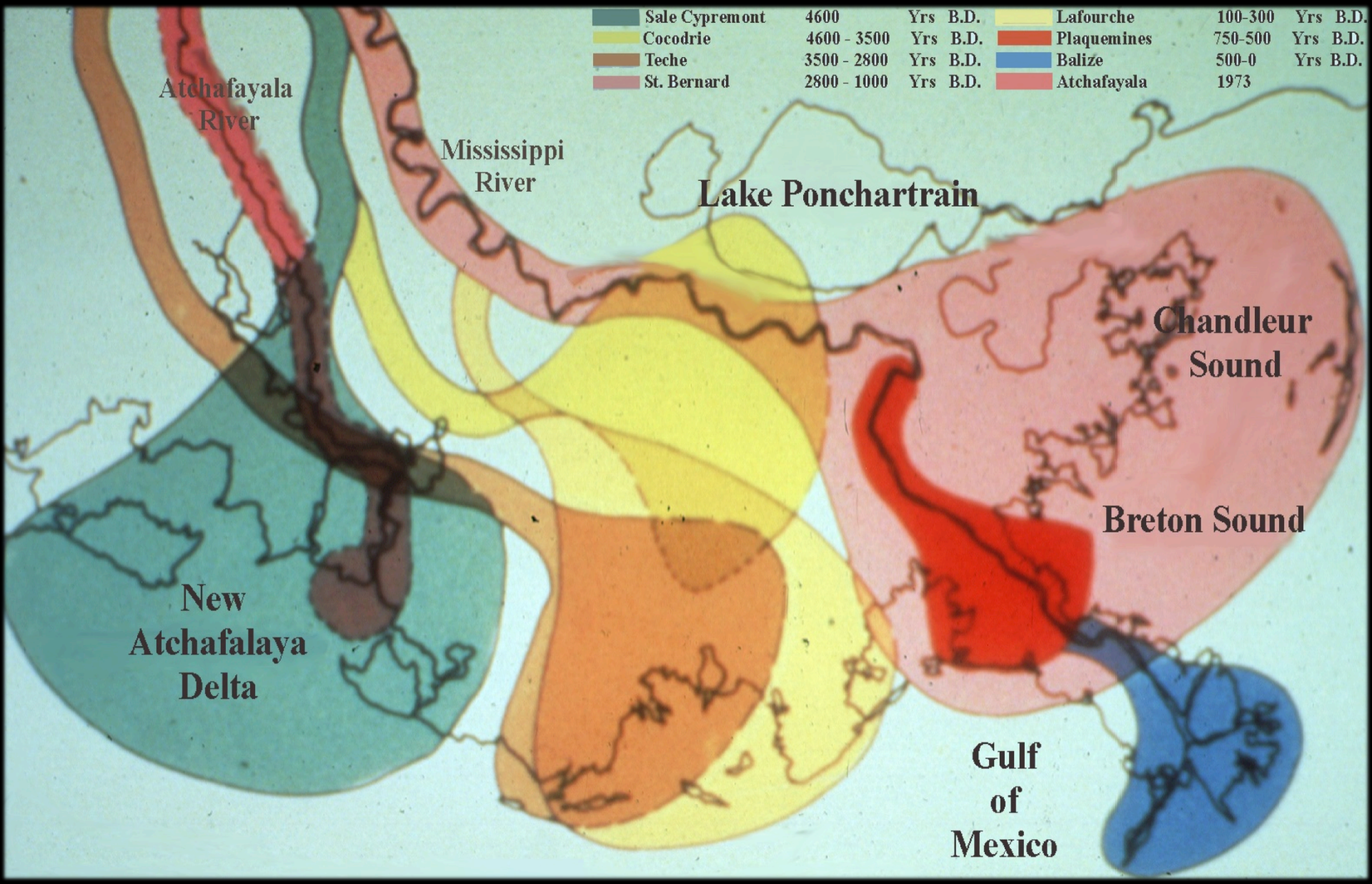
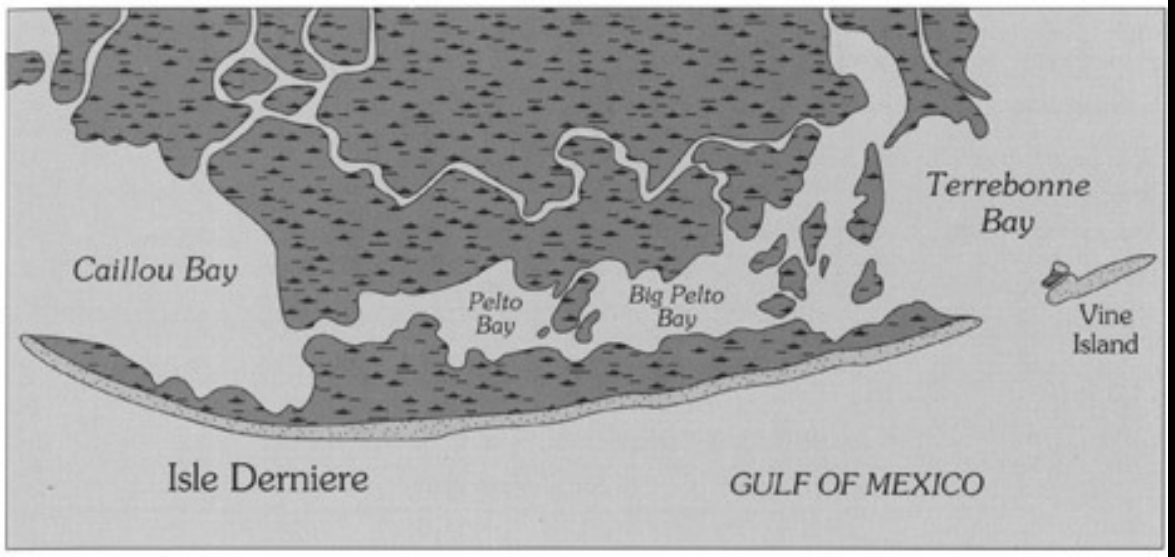
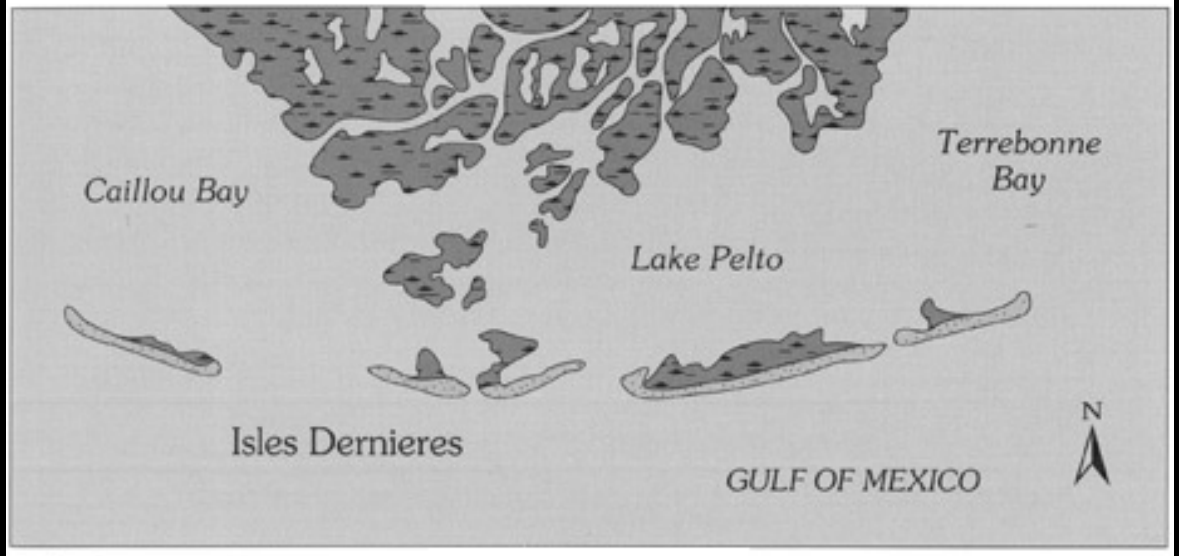
Shreveport
Ruston
Bastrop
Monroe
Jackson
Natchitoches
MISSISSIPPI
TEXAS
Alexandria
Pineville
LOUISIANA
Bogalusa
Hammond
Opelousas
Baton Rouge
Sulphur
Lake Charles
Crowley
Lafayette
New Orleans
New Iberia
Marrero
Chalmette
Morgan City
Houma
Gulf of Mexico


Sale Cypremont 4600 Yrs B.D.
Cocodrie 4600 - 3500 Yrs B.D.
Teche 3500 - 2800 Yrs B.D.
St. Bernard 2800 - 1000 Yrs B.D.
Lafourche 100-300 Yrs B.D.
Plaquemines 750-500 Yrs B.D.
Balize 500-0 Yrs B.D.
Atchafayala 1973
Atchafayala River
Mississippi River
Lake Ponchartrain
Chandleur Sound
Breton Sound
New Atchafalaya Delta
Gulf of Mexico

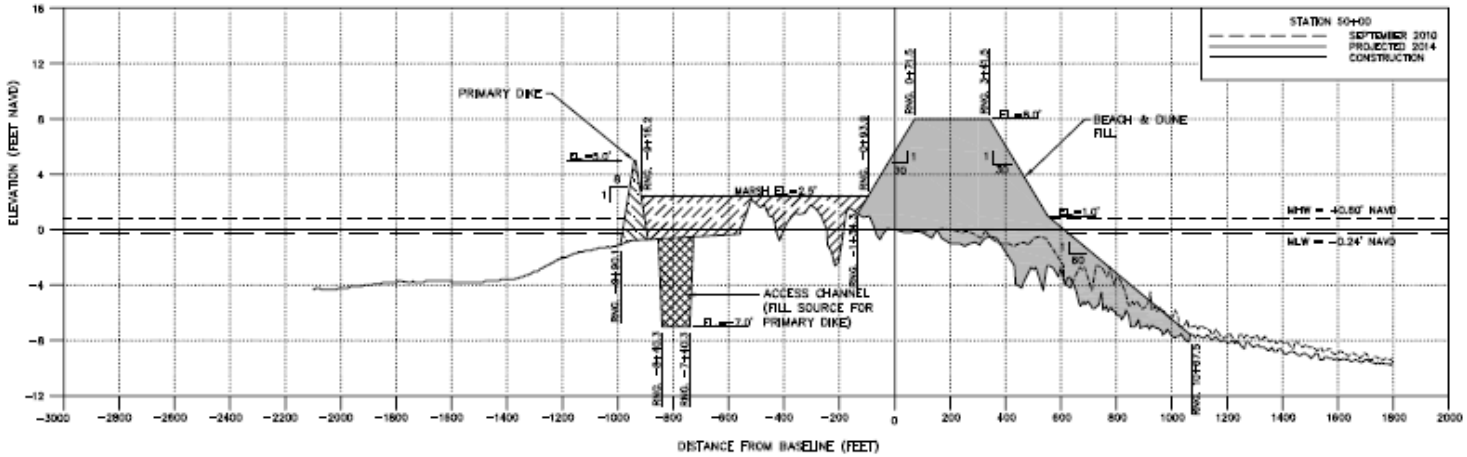


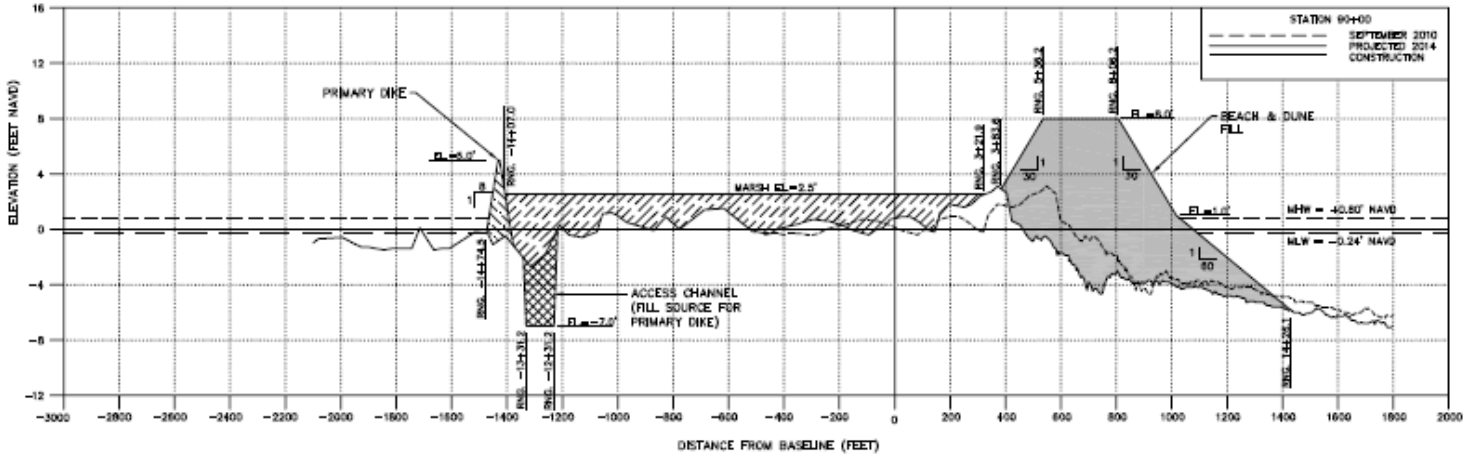
1853



1978

0 5 MILES
0 5 KILOMETERS





LEGEND:

- CONTAINMENT DIKE FILL
- MARSH FILL
- EXCAVATED MATERIAL
- BEACH FILL

NOTES:

1. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
3. POSITIVE RANGES ARE SOUTH OF BASELINE, NEGATIVE RANGES ARE NORTH OF BASELINE.

COASTAL PLANNING & ENGINEERING, INC.			STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	CHENIER RONQUILLE BARRIER ISLAND RESTORATION PROJECT	ALTERNATIVE 1 CROSS SECTIONS
DRAWN BY: A. BELDEN	DESIGNED BY: G. THOMSON, P.E.	REV. / DATE / DESCRIPTION / BY	DRAWN BY:	DESIGNED BY:	STATE PROJECT NUMBER: BA-78 / FEDERAL PROJECT NUMBER: BA-78 / APPROVED BY:	DATE: 05/23/11 / SHEET 6 OF 30

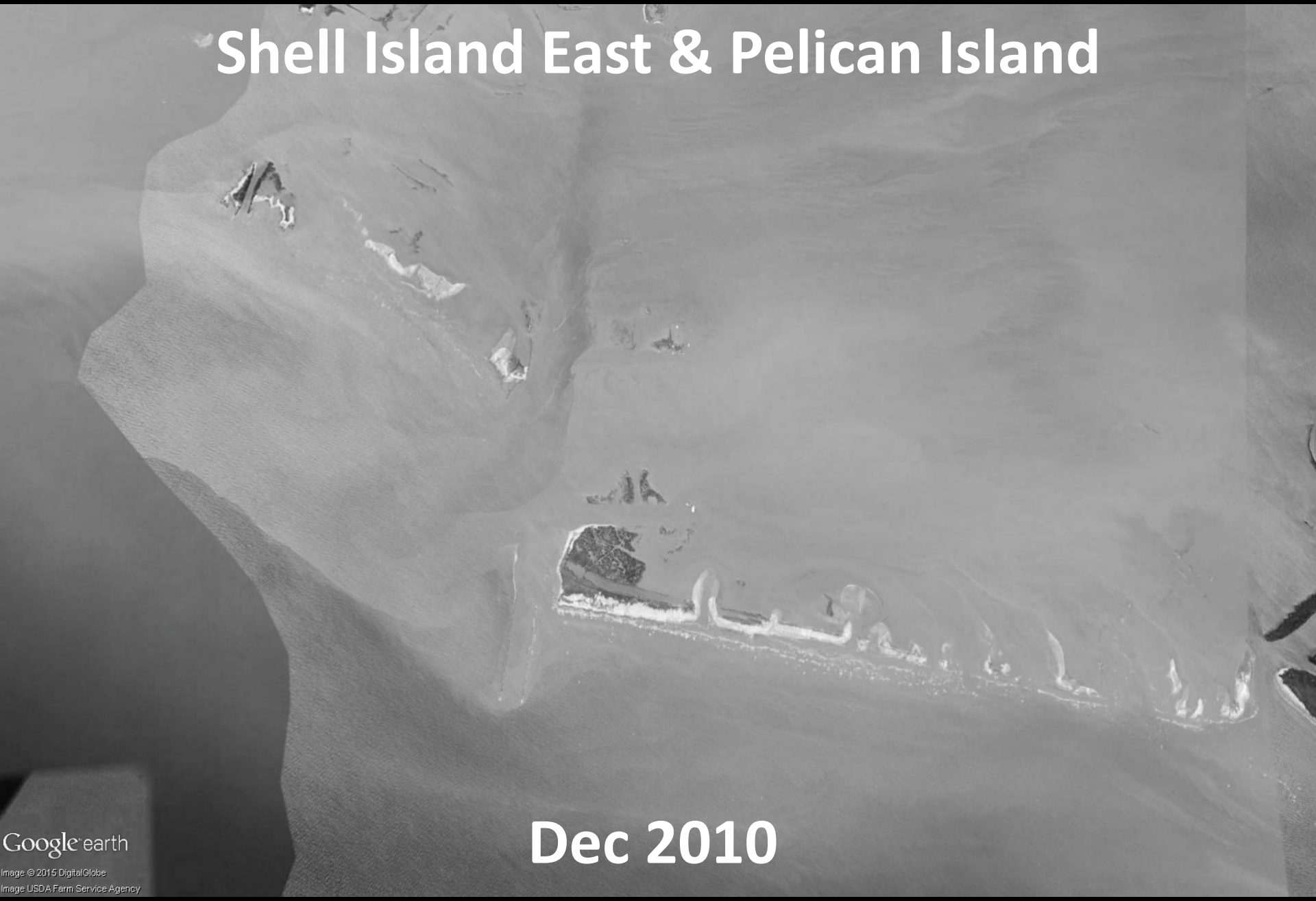
Chaland Headland BA-38-2

Before

Chaland Headland BA-38-2

After

Shell Island East & Pelican Island

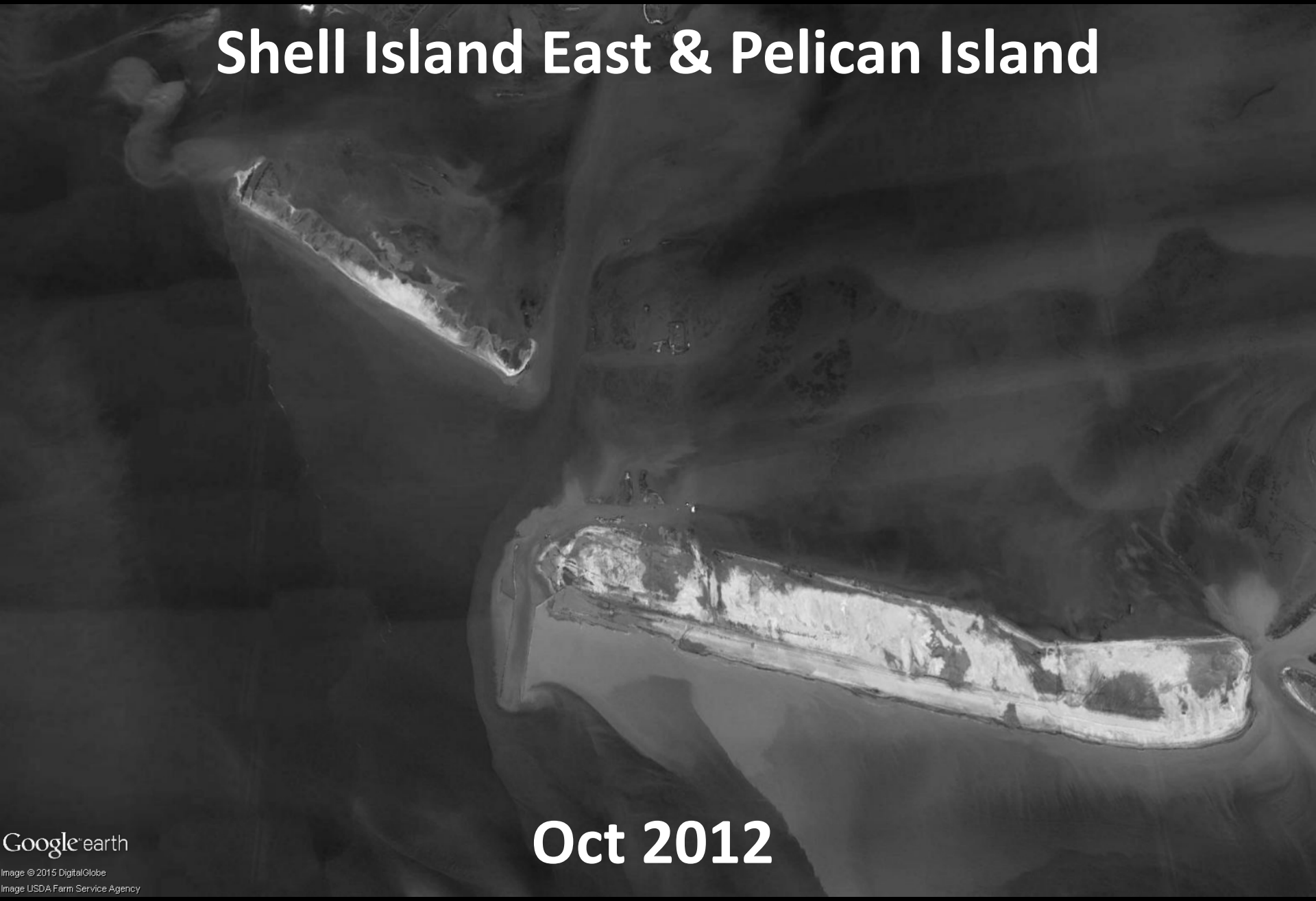


Dec 2010

Shell Island East & Pelican Island

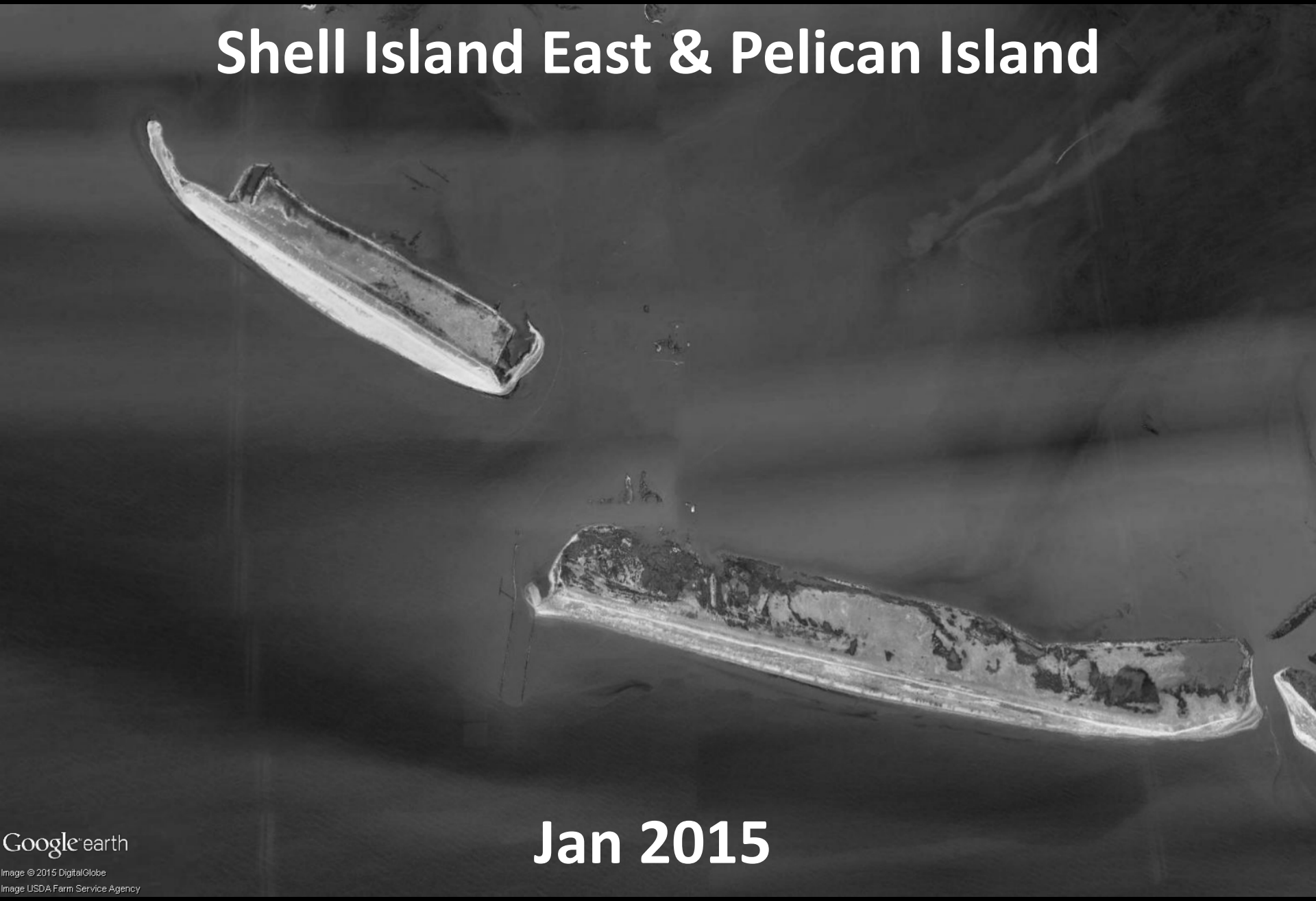
April 2011

Shell Island East & Pelican Island



Oct 2012

Shell Island East & Pelican Island



Jan 2015

Hurricane Isaac – August 28, 2012

Hurricane Isaac – August 28, 2012

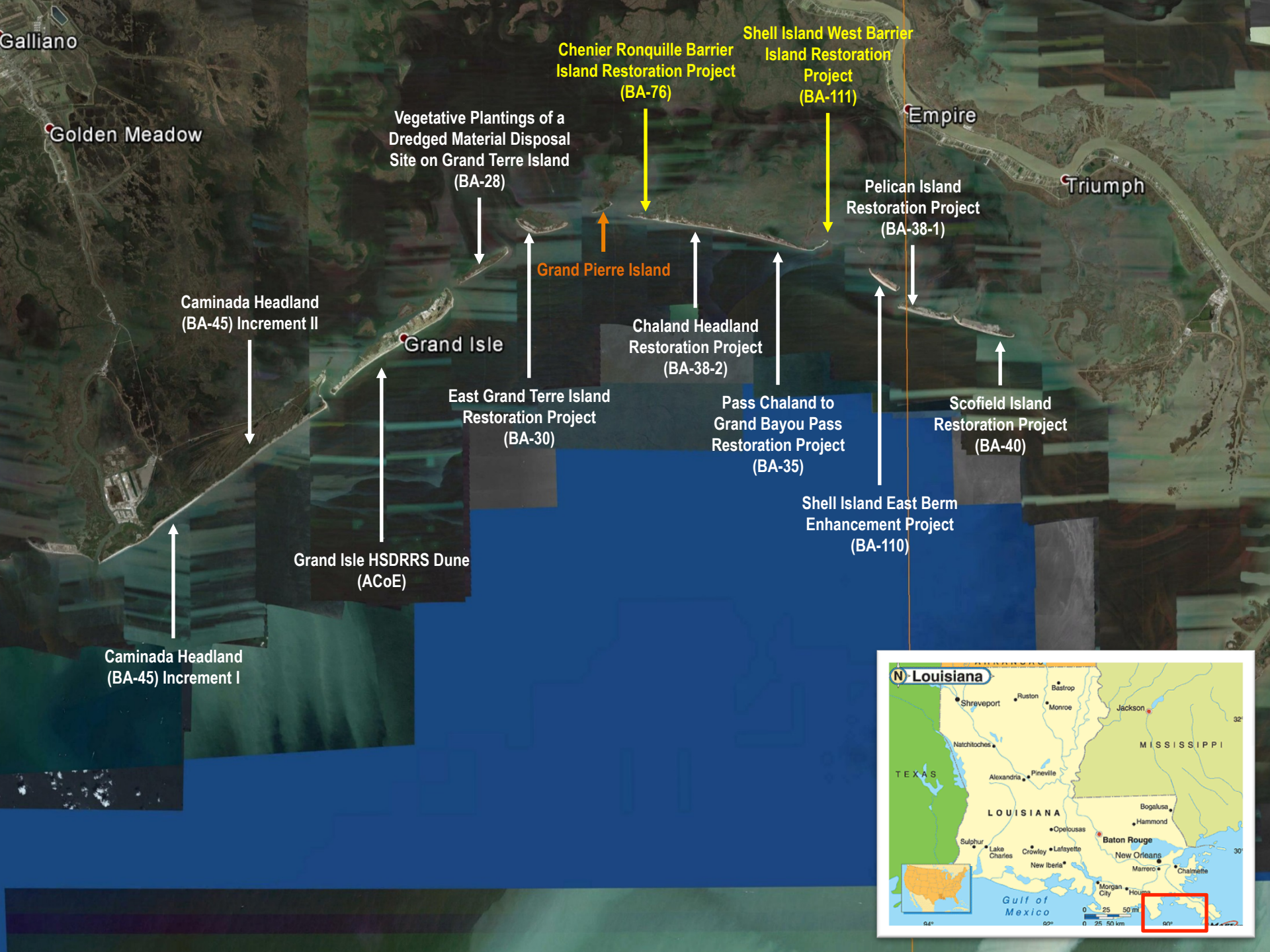
Hurricane Isaac – August 28, 2012

Pre-Construction – January 7, 2012

Post-Construction – August 14, 2012

Post-Isaac – September 8, 2012

Post-Isaac – September 1, 2012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Bogalusa
Hammond
Opelousas
Baton Rouge
Sulphur
Lake Charles
Crowley
Lafayette
New Orleans
New Iberia
Marrero
Chalmette
Morgan City
Houma
Gulf of Mexico

Complementary National Marine Fisheries and National Ocean Service resiliency programs

To address negative impacts from extreme weather events, climate hazards, and changing ocean conditions...

The **Coastal Ecosystem Resiliency Grants** program (NMFS) will focus on the development of healthy and sustainable coastal ecosystems through on-the-ground habitat restoration.

The **Regional Coastal Resilience** program (NOS) will focus on the development of resilient coastal regions, communities, and economic sectors through planning and implementation of policies and associated tools and capacity.

Up to $9 million available

Through the two programs as part of a larger effort to promote coastal resiliency through on-the-ground restoration projects and the development of policies, regulations, and other tools and strategies.