Evolving Partnerships and Processes for Beneficial Use in Mississippi

Gulf State Coast Zone and NERR Meeting
Lacombe, LA
February 26th, 2014

George Ramseur, Mississippi Department of Marine Resources

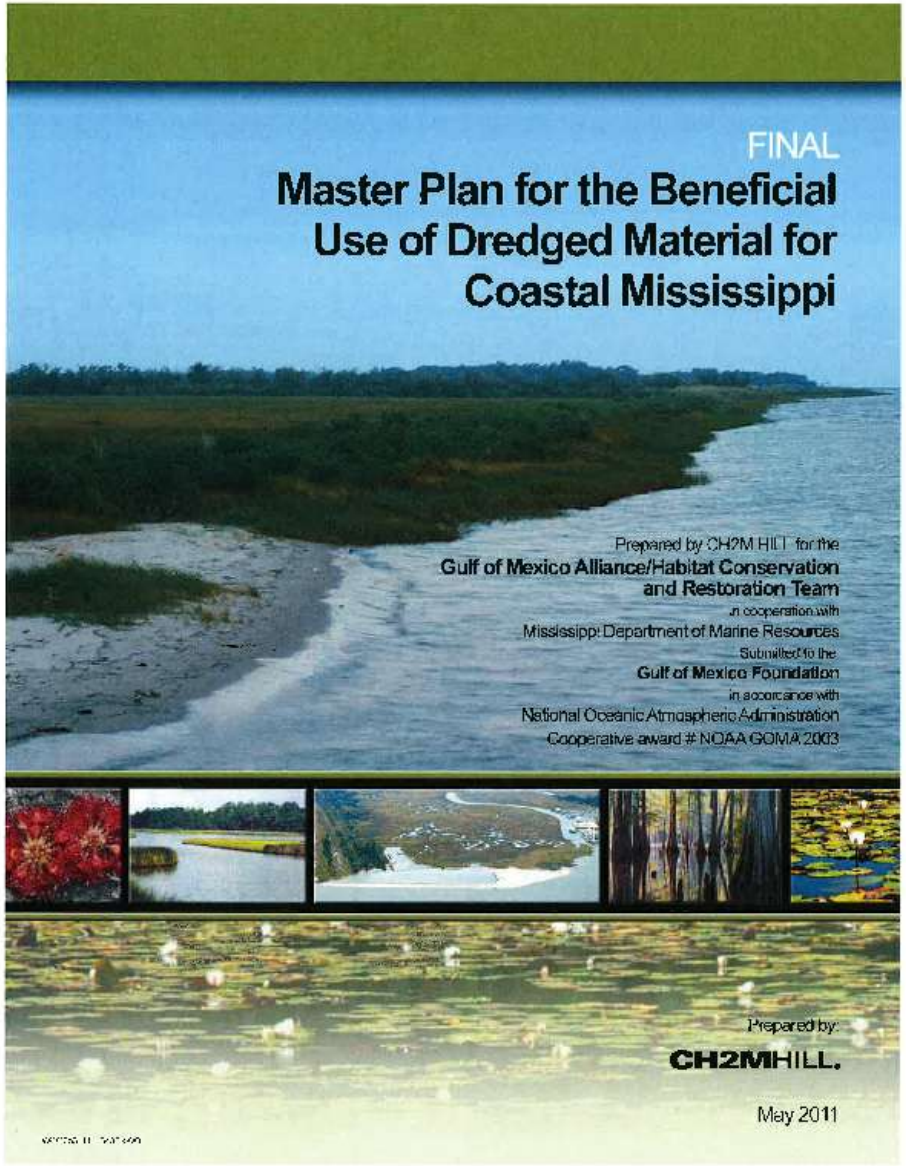
Gulf of Mexico Alliance

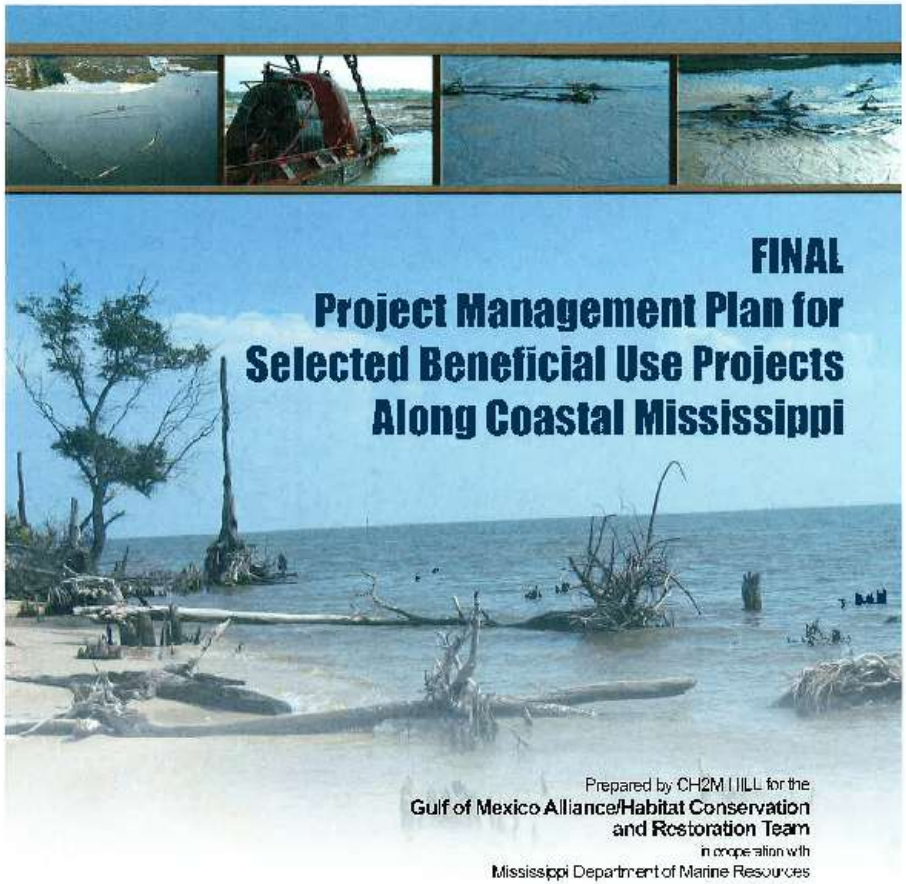
Habitat Conservation and Restoration Team
Regional Sediment Management Initiative
Gulf Regional Sediment Management Master Plan (GRSMMP)

- GRSMMP Collaborators
- U.S. Army Corps of Engineers
- U.S. Geological Survey
- EPA
- NOAA
- The Gulf of Mexico Foundation
- The Nature Conservancy
- Minerals Management Service
- U.S. Fish and Wildlife Service
- Academia

The “BUG”

- **Co-Lead Agencies:** USACE; Mobile District; Point of Contact: Mike Malsom MDMR; Point of Contact: George Ramseur
- **Steering Committee:** Mike Beiser (MDEQ), John Bowie (EPA), Margaret Bretz (SOS), Jenny Jacobsen, Nate Lovelace (USACE), Paul Necaise (USFWS), Ryan Hendren, Mark Thompson (NOAA/NMFS).
- **Agencies & Government:**
  Alabama Department of Conservation and Natural Resources
- Hancock County Port and Harbor Commission
- Mississippi Congressman Palazzo’s Office
- Mississippi Department of Environmental Quality (MDEQ), Office of Pollution Control
- Mississippi Department of Wildlife Fisheries and Parks, Museum of Natural Science
- Mississippi Secretary of State’s Office
- Mississippi State University/ Grand Bay NERR
- National Oceanic and Atmospheric Administration (NOAA)
- - Habitat Conservation Division,
  - Protected Resources Division
- - Office of Coastal Survey
- - Coastal Services Center
- Port of Pascagoula
- Senator Cochran’s Office
- Senator Wicker’s Office
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- USM/Gulf coast Research Laboratory
- **Private & NGO:**
- Anchor, QEA
- Bean Companies
- Chevron Pascagoula
- CH2M Hill
- Filtrex Land and Improvement Systems
- Ingalls, Pascagoula
- ORA Technologies
- VT Halter Marine, Pascagoula


FINAL
Master Plan for the Beneficial Use of Dredged Material for Coastal Mississippi
Prepared by CH2M HILL for the
Gulf of Mexico Alliance/Habitat Conservation and Restoration Team
in cooperation with
Mississippi Department of Marine Resources
Submitted to the
Gulf of Mexico Foundation
in accordance with
National Oceanic Atmospheric Administration
Cooperative award # NOAA GOMA 2003
Prepared by:
CH2MHILL.
May 2011


FINAL
Project Management Plan for Selected Beneficial Use Projects Along Coastal Mississippi
Prepared by CH2M HILL for the
Gulf of Mexico Alliance/Habitat Conservation and Restoration Team
in cooperation with
Mississippi Department of Marine Resources
Submitted to the
Gulf of Mexico Foundation
in accordance with
National Oceanic Atmospheric Administration
Cooperative award # NOAA GOMA 2003
CH2MHILL
September 2011

Marsh Ecosystem Restoration through Beneficial Use

Beneficial Use (BU) FACTS:

- MS loses approximately 200 acres of marsh and related habitat annually.
- MS dredges approximately 5-8 million cubic yards annually (enough to fill about 75 Coast Coliseums).
- TX, AL and LA all have extensive and active programs for Beneficial Use of dredge material to restore marsh.
- NOAA states that constructed marshes are 70% as productive as natural ones and that they are from 12 to 150 times as productive as non-vegetated shallow water habitats.

MISSISSIPPI CODE BENEFICIAL USE AMENDMENT:

Effective July 1, 2010, Section 49-27-61 of the Mississippi Code of 1972 was amended to address misconception in the beneficial use of dredge materials program. The provisions include the mandatory participation in beneficial use programs or permitted activities receiving over 2500 cubic yards unless provided the material is suitable and a site is available.

Frequently asked questions:

Q. Why do we need to restore or create marsh habitat?

A. Tidal marsh is rapidly turning to open water due to unintended impacts of development, shipping channel maintenance, and other activities as well from more natural processes such as erosion, storms and sea level rise.

Q. Why use dredged materials?

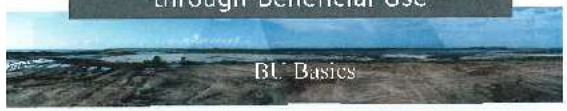
A. It is important that the material be similar in composition to that of the damaged marsh to increase ecosystem function and habitat suitability. Also, this material, that would have historically replenished the tidal marsh ecosystem, is a logical choice for use in restoration.

Q. Are the dredged materials clean and safe for environmental use?

A. Yes, all materials that are used for marsh creation are rigorously tested for contaminants before receiving any water body. The most important aspect of these projects is creating healthy and viable habitats for wildlife and humans.

For additional information please contact
DMR's Office of Coastal Zone Management
228.374.5000

Marsh Ecosystem Restoration through Beneficial Use



Mississippi has lost thousands of acres of tidal marsh that it couldn't afford and didn't need to lose. Normal dredging activity in the State produces enough clean material to restore these wetlands in 10 to 20 years. This means we can recover habitats needed for clean water, recreation, storm protection and nurturing our seafood. This is also about our economy, particularly commercial and recreational fishing as well as our ports and related industries.

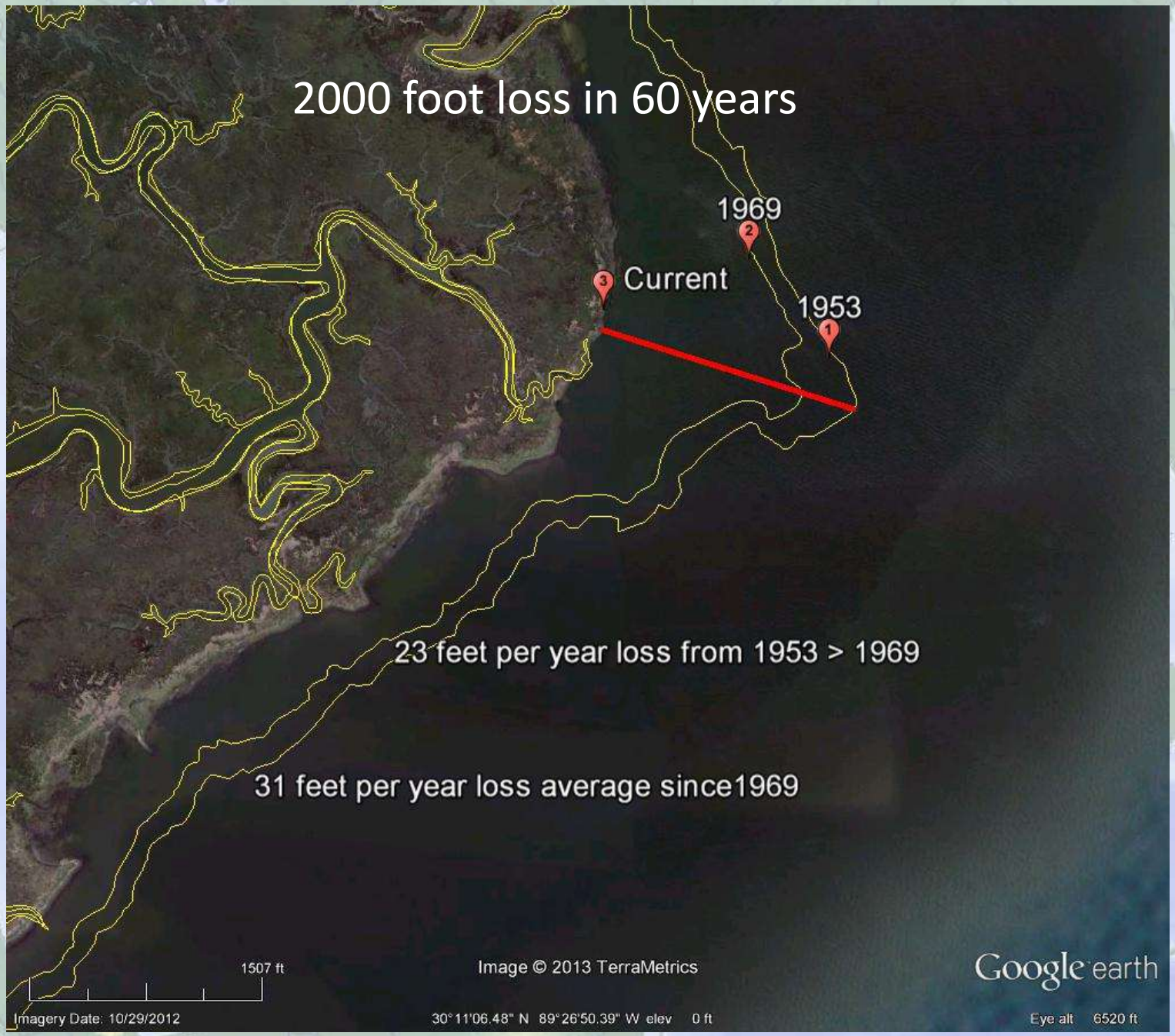
Concerns:
- Mississippi has lost about 16,000 acres of coastal habitat since 1958
- Our shoreline loss rate is exceeded only by Louisiana's
- Some of our marshes are retreating at more than 50ft. per year
- Marsh loss directly impacts shrimp, menhaden and blue crab fisheries
- Nursery habitat for trout, redfish and flounder is being eliminated
- Louisiana's marsh loss impacts fisheries in Mississippi

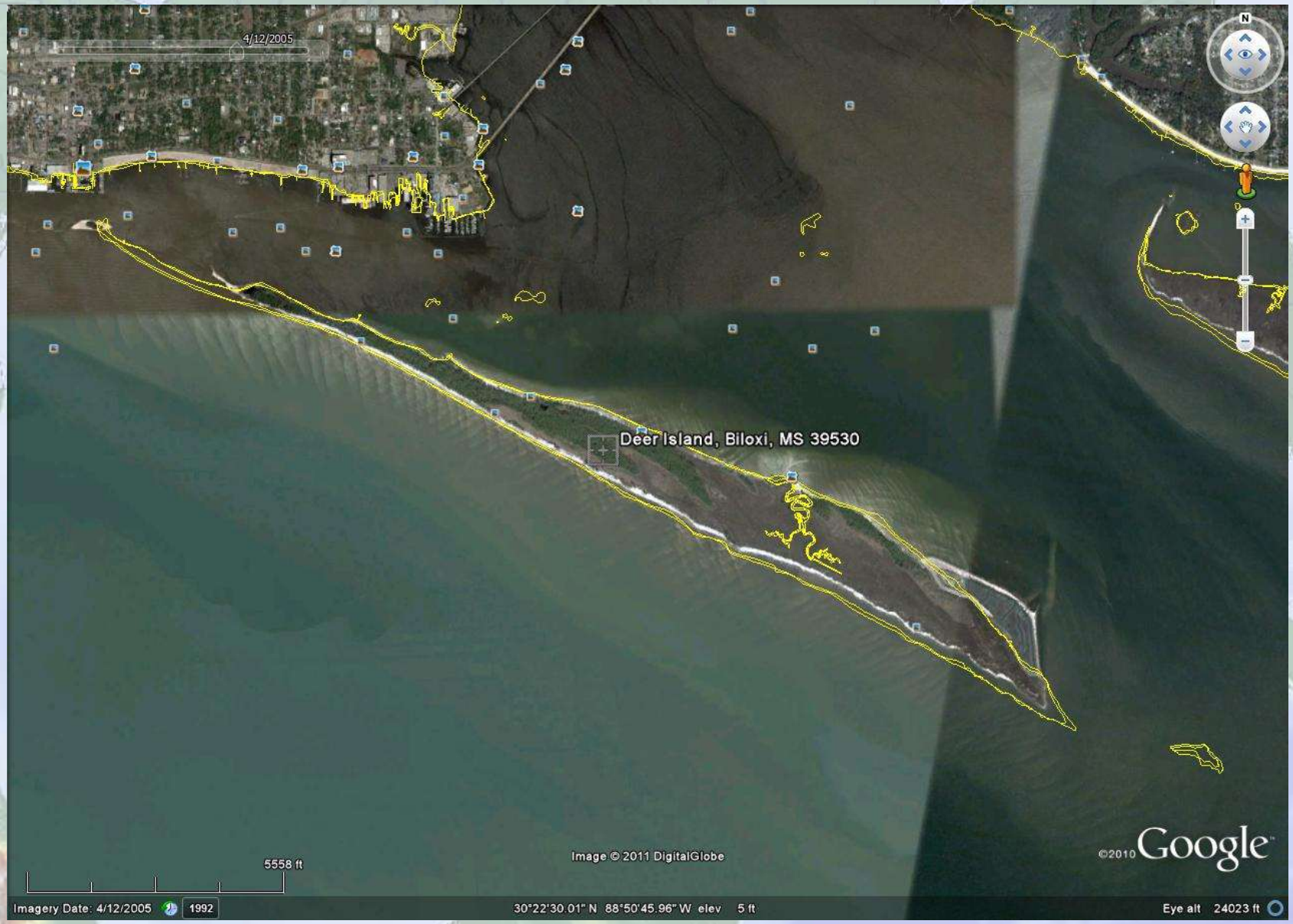
Resources:
- Mississippi dredges about 5 to 8 million cubic yards annually
- 5 to 8 million cubic yards can restore 1000 acres of marsh or more
- This material is worth $60 to $180 million for restoration annually
- Most of this material is still being thrown away in "disposal areas"
- BU sites can be more economical than disposal areas

Needs:
- Resources for careful planning, surveying and permitting of new BU sites
- A catalog of BU sites in each coastal county to be ready as dredge material becomes available
- Funding to implement BU sites once they are permitted
- Outreach to help access RESTORE Act funding
- Despite the State BU Law, we have little BU capacity at this time

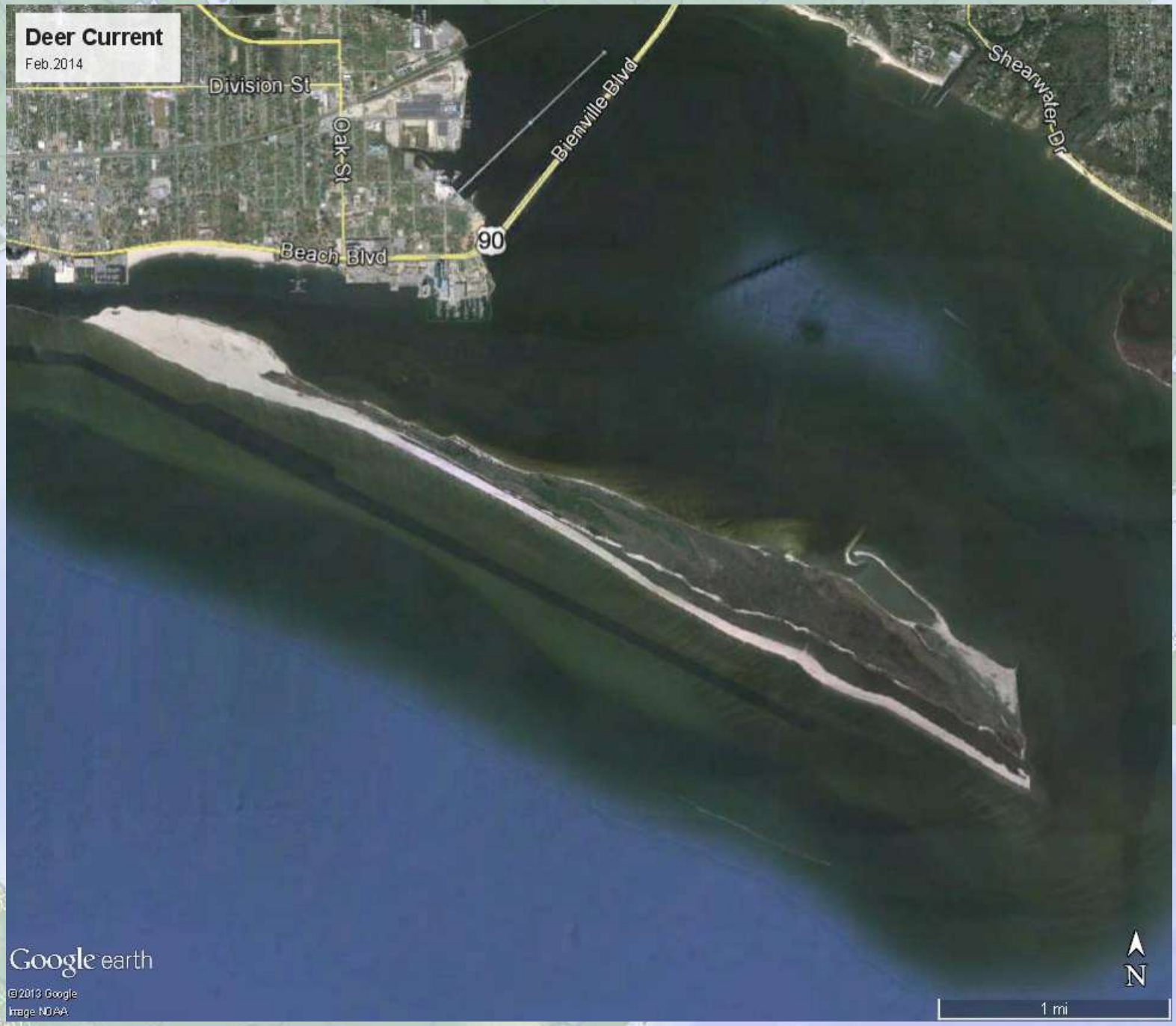
Success:
In just 3 years, without any dedicated funding, Mississippi's BU Program, along with the Mississippi Beneficial Use Group (BUG), developed several major public/private projects. These include two projects on Deer Island with the Port of Gulfport as well as an upcoming project restoration of Round Island with V.T. Hallet Marine.

Future:
Mississippi has the means to fully restore decades worth of lost habitat in just a few short years. We can do this by improving our management of a key resource, dredged materials. Dedicating dredge materials to BU will be a win for the environment as well as our marine dependent economy.


2000 foot loss in 60 years
1969
2
Current
3
1953
1
23 feet per year loss from 1953 > 1969
31 feet per year loss average since1969
1507 ft
Image © 2013 TerraMetrics
Google earth
Imagery Date: 10/29/2012
30°11'06.48" N 89°26'50.39" W elev 0 ft
Eye alt 6520 ft



Deer Island circa 2003.


Deer Current
Feb.2014
Division St
Oak St
Biemville Blvd
Shearwater Dr
90
Beach Blvd
Google earth
©2013 Google
Image NOAA
N
1 mi

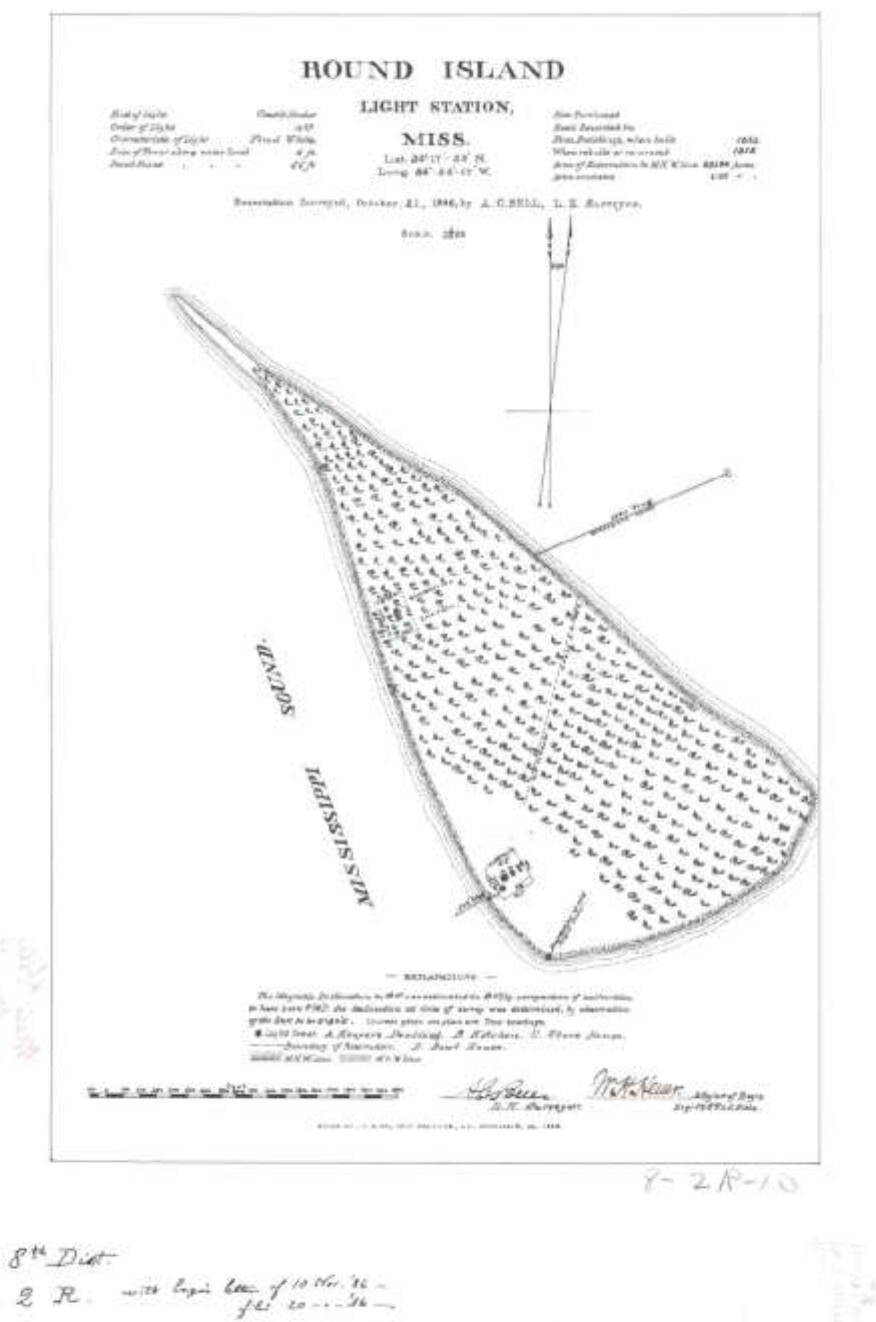
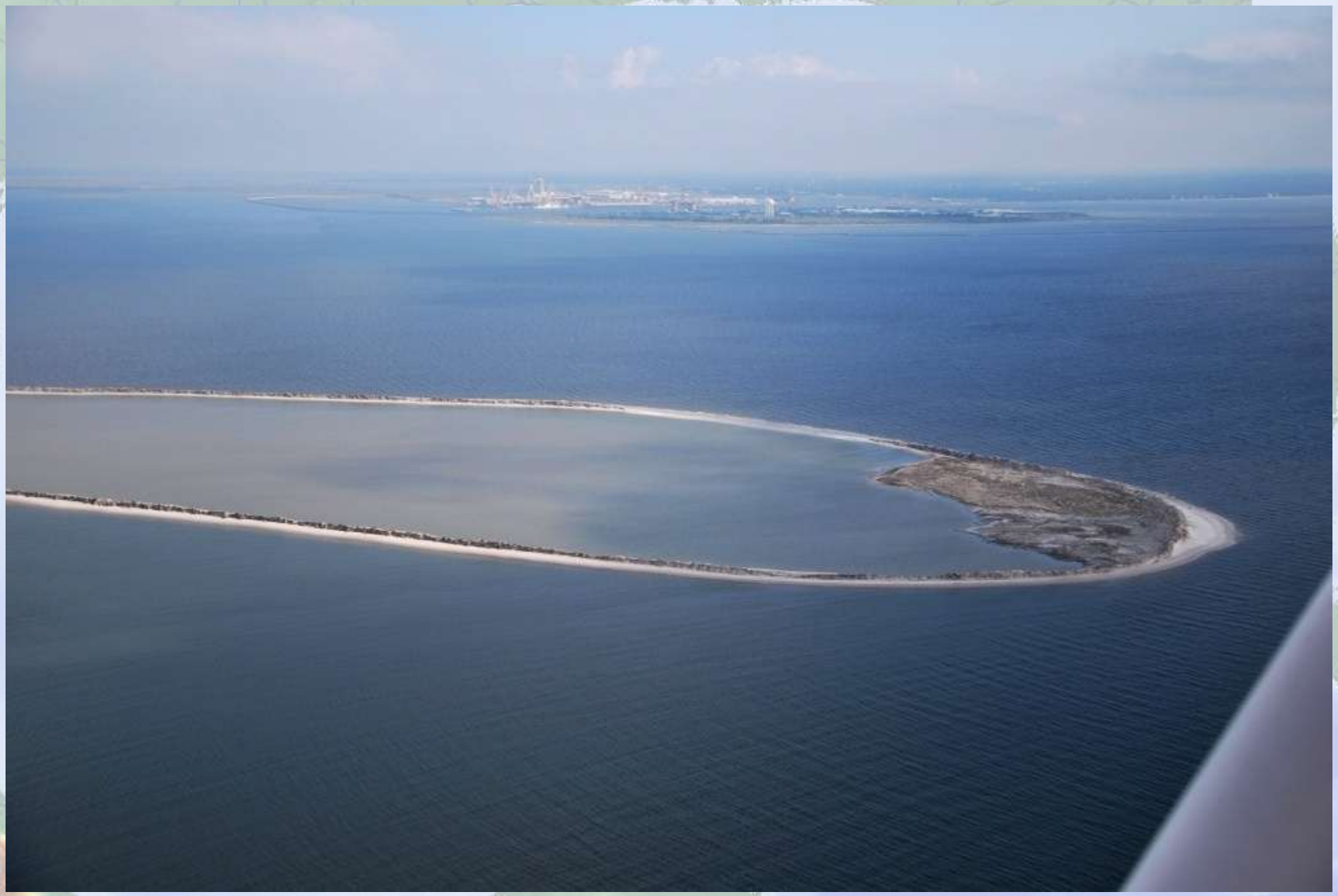
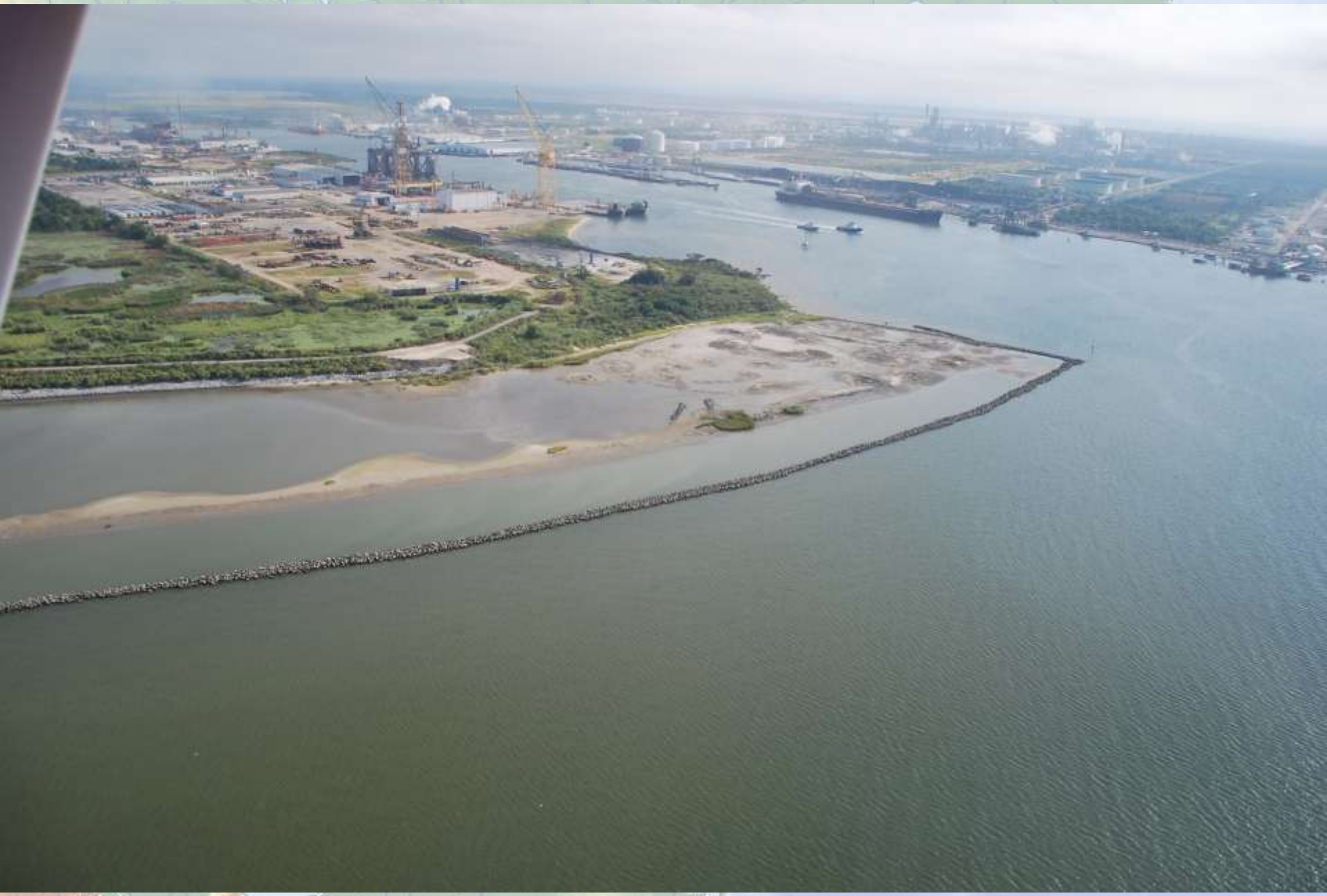

ROUND ISLAND
LIGHT STATION,
MISS.
SOUND
MISSISSIPPI
8th Dist.
2 R.
8-2R-10


Image USDA Farm Service Agency
3598 ft
Image © 2013 TerraMetrics
30°17'46.13" N 88°35'34.72" W elev 0 ft
Google earth
Eye alt 15561 ft




place materials starting here
and here
Greenwood Island
open dike here
1081 ft
© 2013 Google
Google earth
Imagery Date: 3/13/2013
30°20'07.09" N 88°31'05.86" W elev 0 ft
Eye alt 4678 ft



Ongoing NERR Collaboration

- SLR Modifying Weir Research with Weeks Bay NERR

New “Intra-Agency” Efforts

- Dear BUG,
- **Our regular BUG meeting will not be held this month!**
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- *However*, in our usual location and time slot (10 til noon, Wednesday, February 12th) MDMR will hold a working meeting that includes representatives from our Fisheries and Coastal Zone Management groups to look at habitat restoration and its relationship to our fisheries and the communities that depend on them.
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- If any of you have a particular interest in this subject, you are welcome to attend. If anyone has an interest in calling in, please let me know.
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- We will have a report of these discussions the next regular BUG which is scheduled for March 12th, 2014.
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- Thank you,
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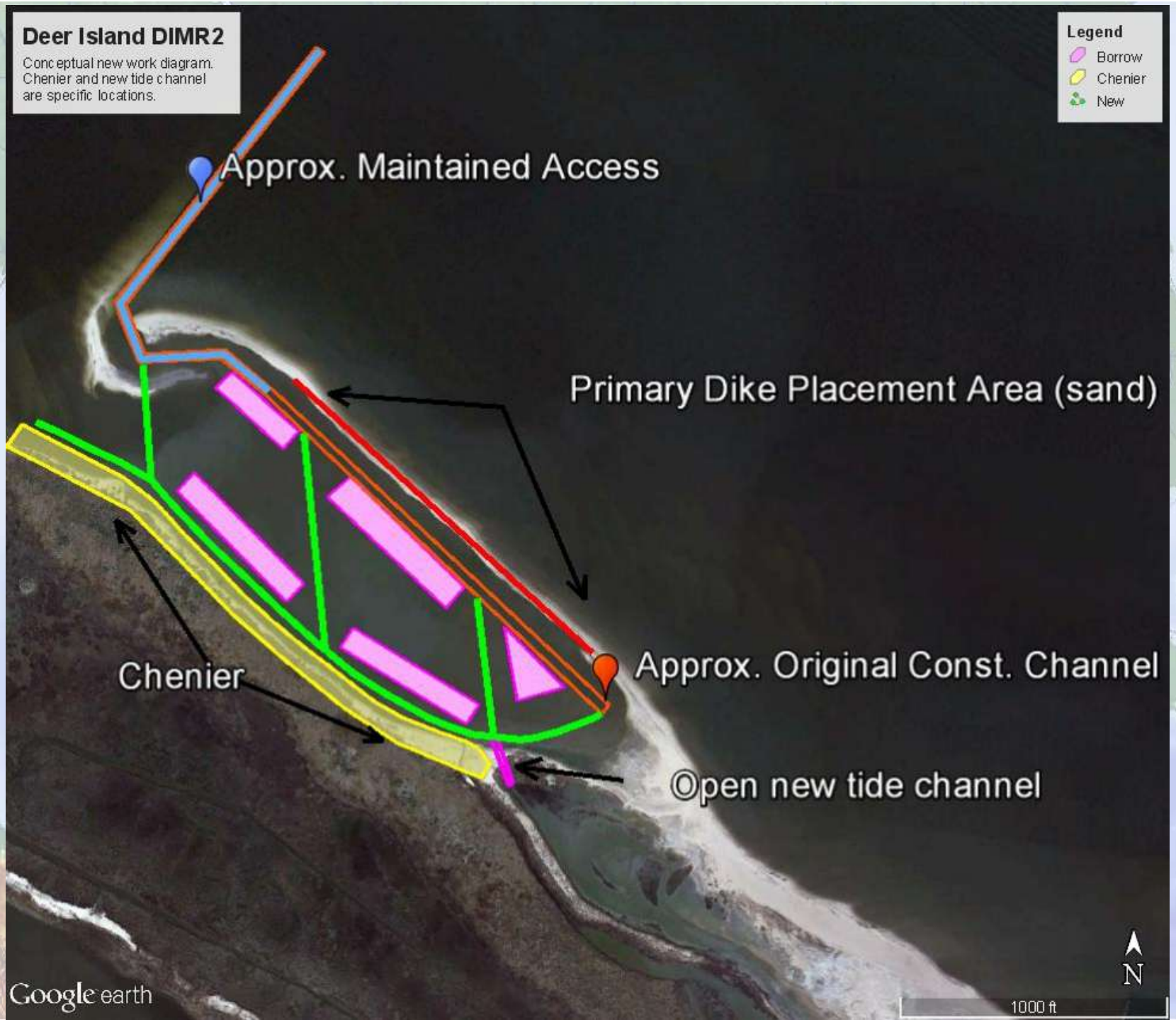
- George Ramseur


Deer Island DIMR2
Conceptual new work diagram. Chenier and new tide channel are specific locations.
Legend
Borrow
Chenier
New
Approx. Maintained Access
Primary Dike Placement Area (sand)
Approx. Original Const. Channel
Chenier
Open new tide channel
N
1000 ft
Google earth

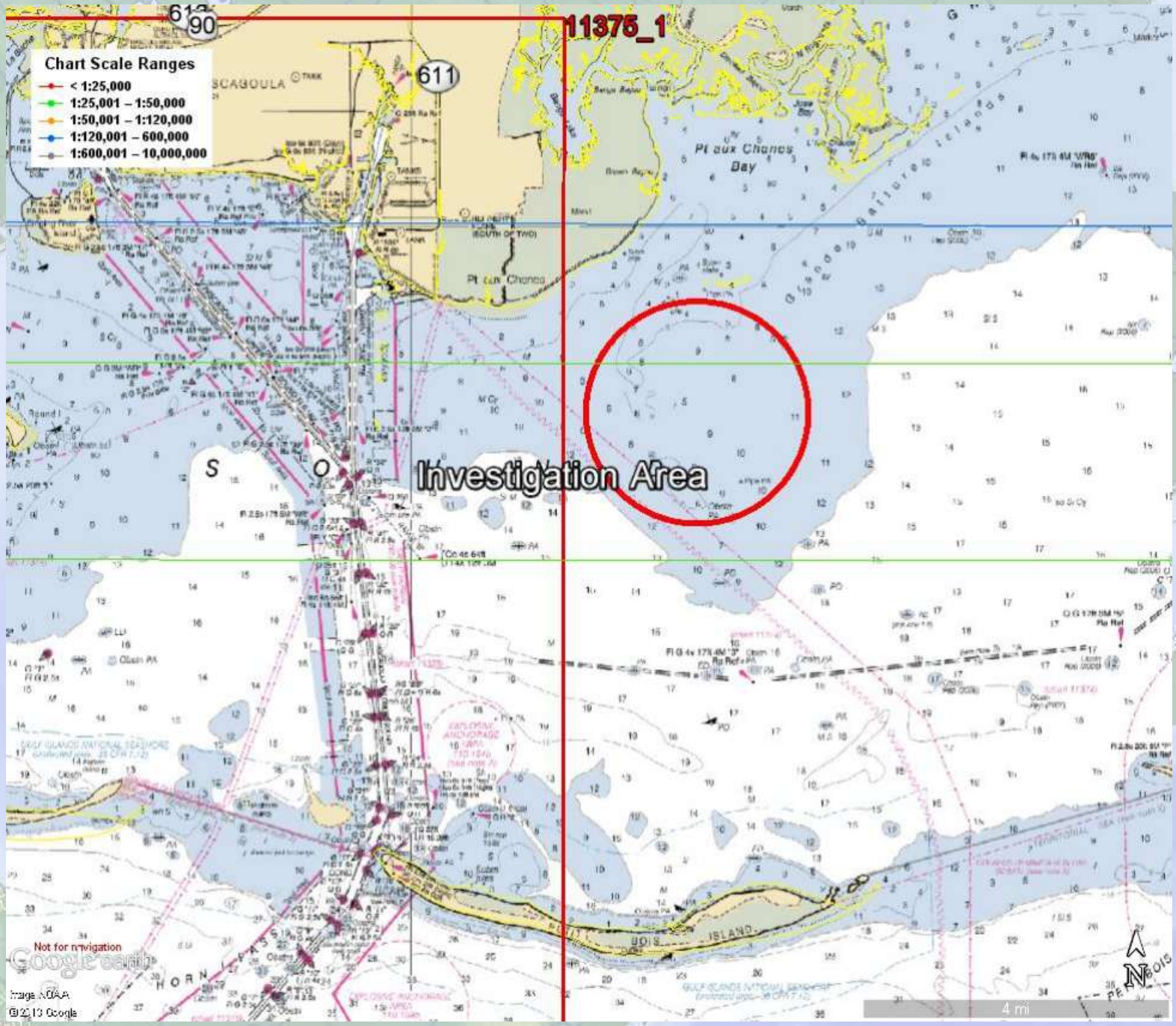
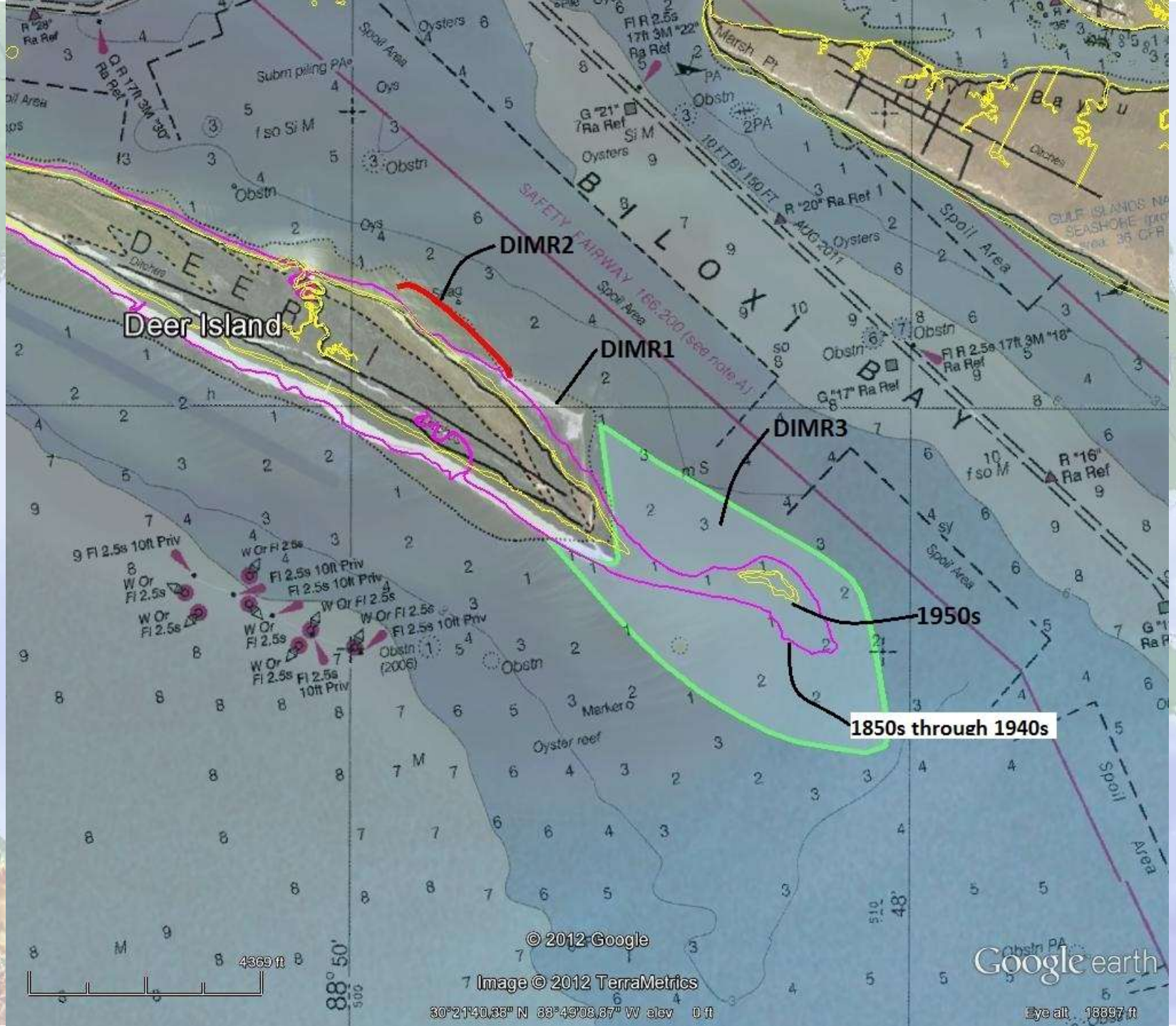
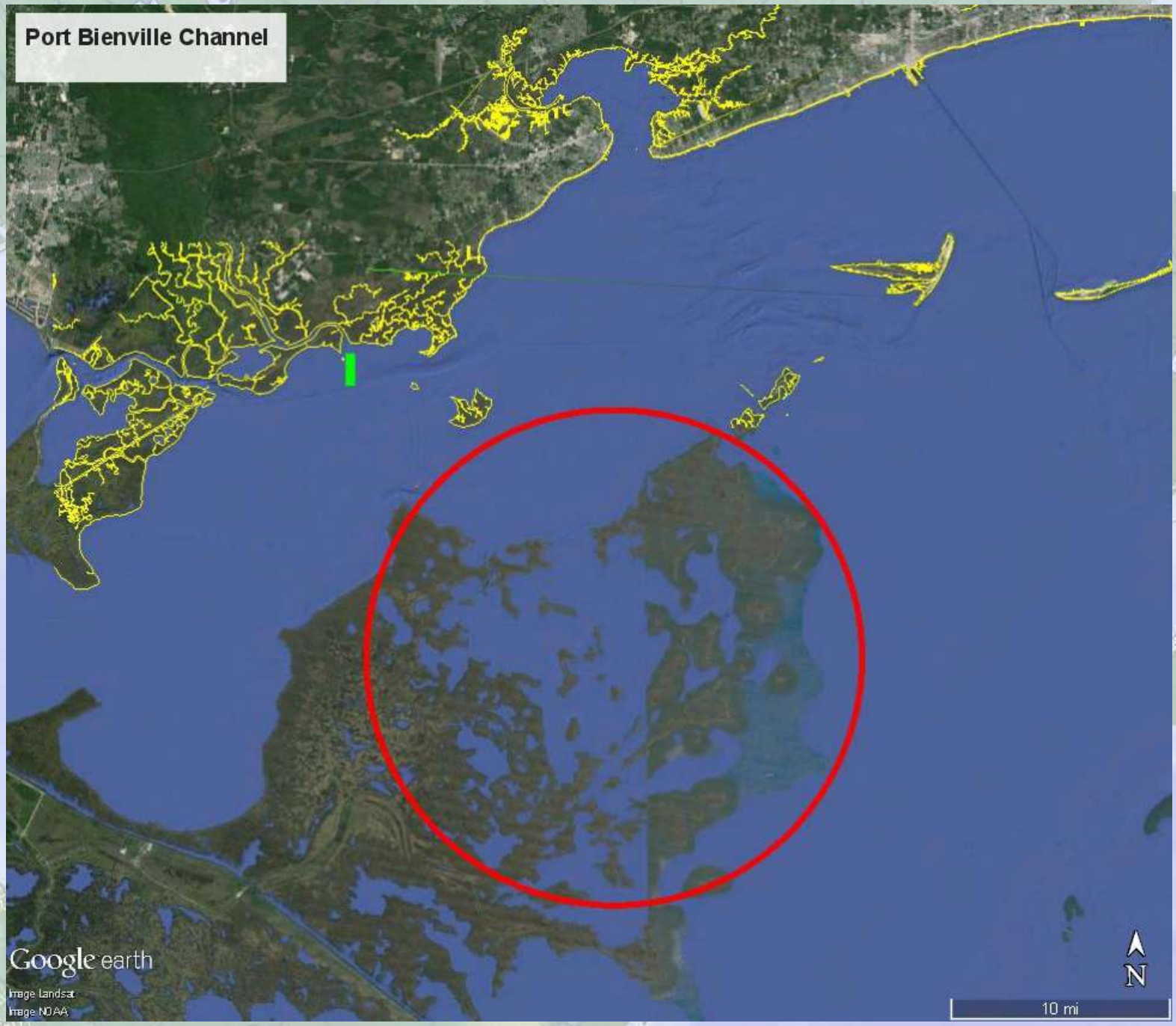


Chart Scale Ranges
< 1:25,000
1:25,001 – 1:50,000
1:50,001 – 1:120,000
1:120,001 – 600,000
1:600,001 – 10,000,000
11375_1
611
Pt aux Chenes Bay
Pt aux Chenes
Investigation Area
Not for navigation
Google earth
Image NOAA
©2013 Google
4 mi
N


DIMR2
Deer Island
DIMR1
DIMR3
1950s
1850s through 1940s
© 2012 Google
Image © 2012 TerraMetrics
Google earth


Port Bienville Channel
Google earth
Image landsat
Image NOAA
N
10 mi

NOAA
FISHERIES
SERVICE

Questions?