

Dauphin Island Northside Restoration Public Information Meeting

March 5, 2020 – 6:00 PM CT

Dauphin Island Town Hall



**Questions and comments will be taken
at the end of the presentation**

Overview

- NFWF Grant Description
- Background – 2010 Oil Spill Response
- Background – Barrier Island Breaching
- Purpose – Northside Restoration
- Site Investigations
- Question/Comment Period

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Funding Description



- National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefit Fund – a portion of the payments received by NFWF as part of judgments in federal lawsuits against BP and Transocean
- Distributed through the Alabama Department of Conservation of Natural Resources (ADCNR)
- Purpose of funds: “To remedy harm and eliminate or reduce the risk of future harm to Gulf Coast natural resources [...]”
- Project Description: “Engineer and design activities as Phase I of a multi-phase restoration effort aimed at restoring back-barrier beach and dune habitat on the northwest end of Dauphin Island, Alabama.”

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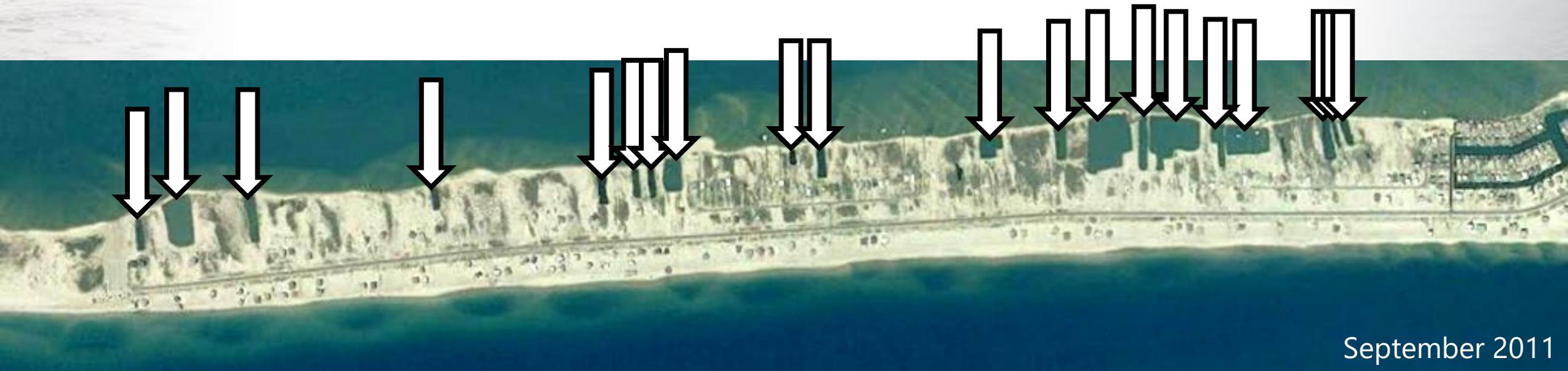
Background – 2010 Oil Spill Response



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Background – Original Borrow Pits

- Sand originally dug from ~20 pits over ~72 individual properties in 2010



September 2011

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Background – Current Borrow Pits

- 14 distinct inland pits still present, 1 pit filled by owner
- 5 pits have merged/opened into Mississippi Sound



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Background – Barrier Island Breaching

- Breaching can occur when barrier islands overwash, removing sand and opening a channel through the island
- Islands tend to breach where they are **low in elevation** and **narrow in width**
- Dangers of a breach on an inhabited island: catastrophic property damage, loss of access, infrastructure damage, economic disaster, possible loss of life



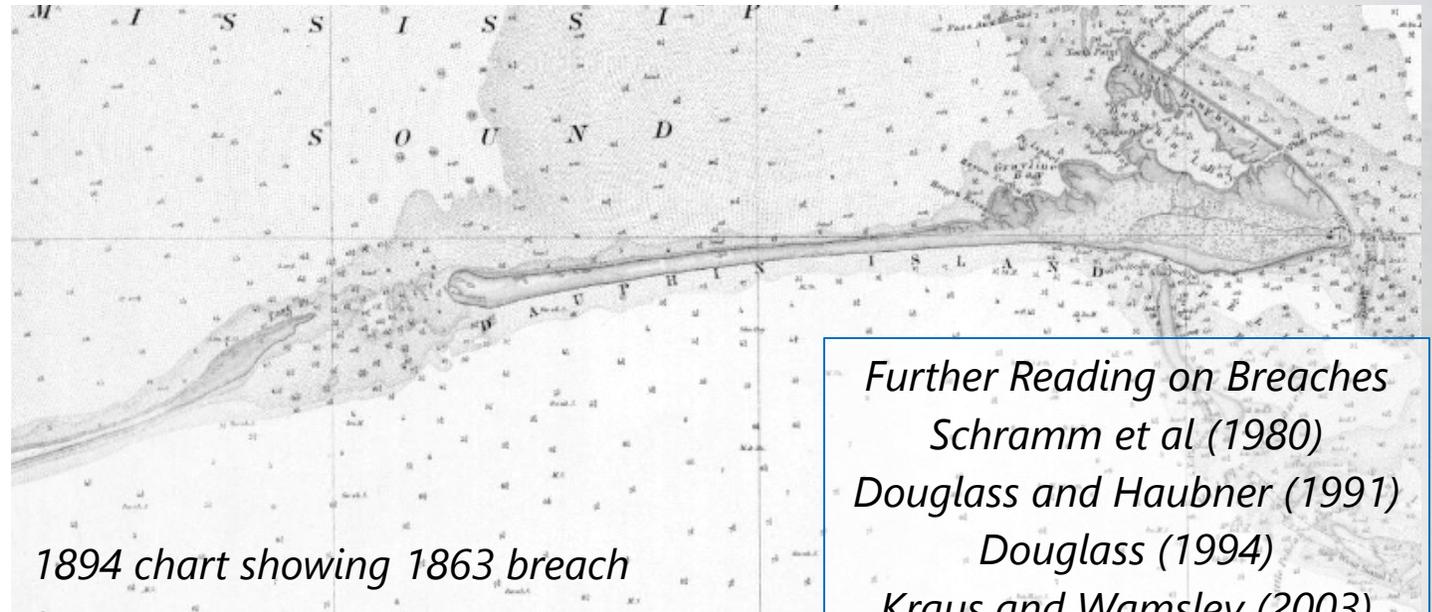
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Background – West End Breaching

- The West End of Dauphin Island has breached many times in the past, including in 1863, 1916, 1947, 1979, 2004, & 2005



From Schramm et al (1980)



1894 chart showing 1863 breach

Further Reading on Breaches
Schramm et al (1980)
Douglass and Haubner (1991)
Douglass (1994)
Kraus and Wamsley (2003)
Hansen and Sallenger (2007)

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Background – Hurricane Ivan Breaches



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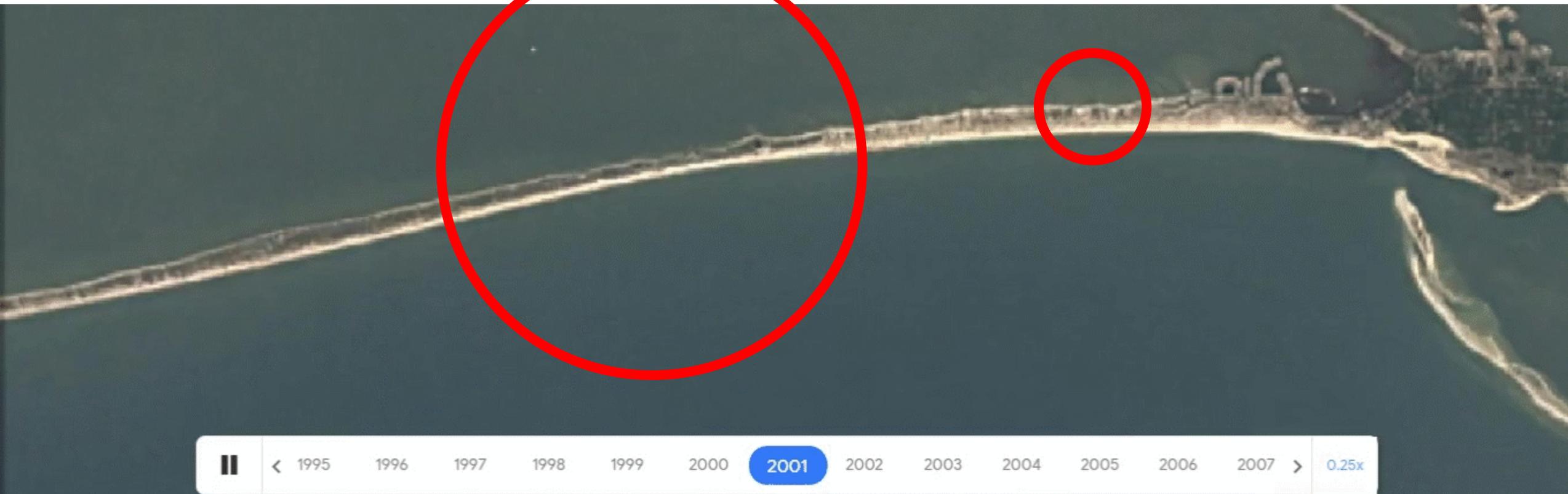


Post-Ivan (Imagery Date 5/7/05)

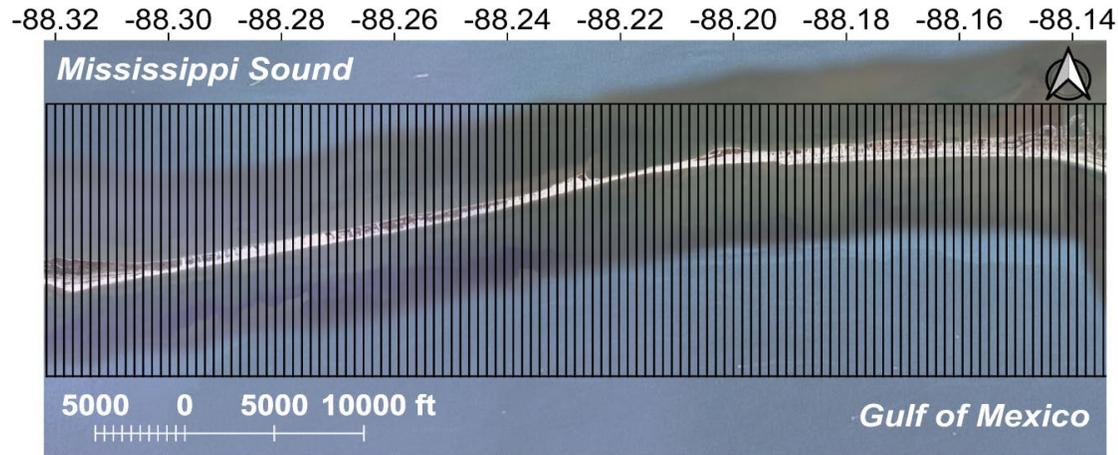
Post-Katrina (Imagery Date 6/14/06)

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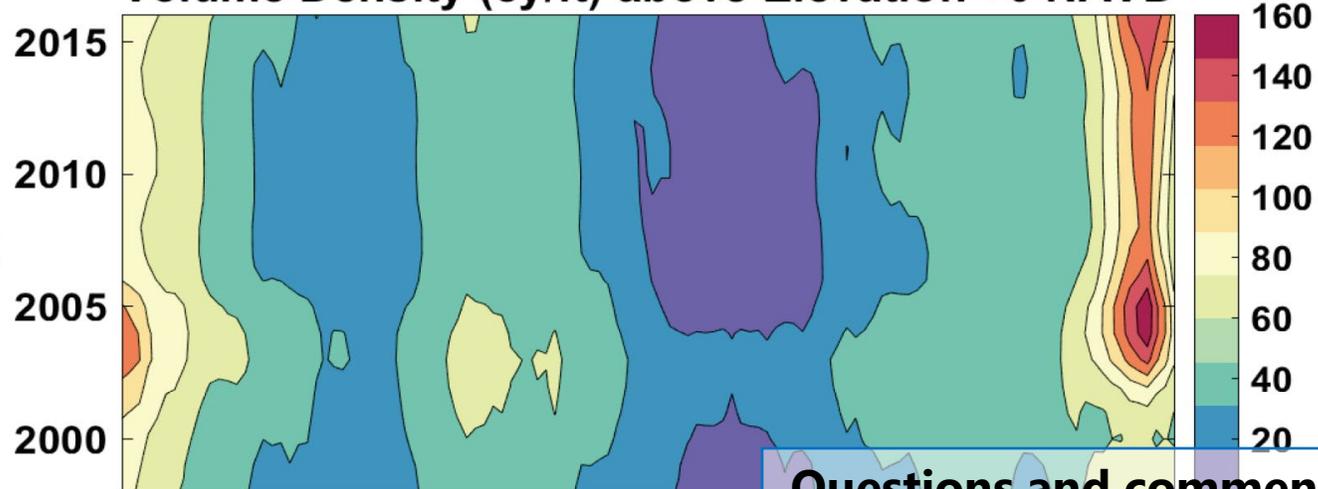
Timelapse of Katrina Cut – 2000-2018



West End Volume Density Timestack



Volume Density (cy/ft) above Elevation +0 NAVD

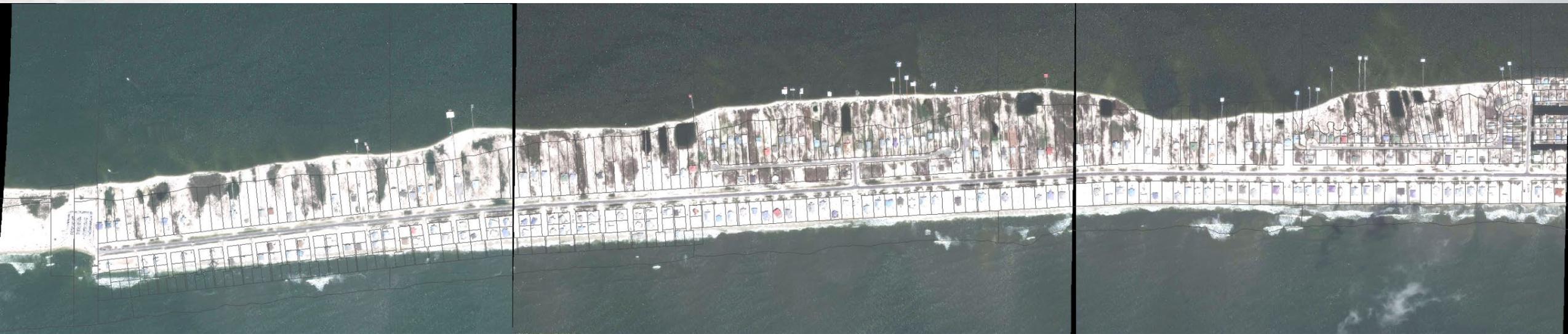


- LIDAR surveys used to evaluate cross-shore volume density of sand (the amount of sand in a "slice" of the island)
- Breaches most likely in "cooler" colored areas
- Katrina Cut now stabilized with large rocks

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Purpose – Northside Restoration

- Goal: Increase the island's resilience to breaching by filling the 2010 pits with clean beach sand



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Site Investigation – Status

Sand Sampling & Sand Source

- Sand samples collected from island
- Sand samples collected from three potential sand pits in Mobile County
- Three other potential upland sources identified
- Next Steps: Analyze sand for compatibility

Pit & Beach Surveys

- No surveys completed at this time due to access issues
- Next Steps: We need your help!

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How Can You Help?

- Property owner permissions / rights of entry for our surveyors
- The Town has received 26 ROE documents for properties with holes, allowing us to properly survey only 4 of the inland holes and segments of the open Mississippi Sound shoreline
- Still outstanding:

2406 BIENVILLE	2418 BIENVILLE	2426 BIENVILLE	2632 BIENVILLE	2332 ISLAND SHORES	2358 ISLAND SHORES
2410 BIENVILLE	2420 BIENVILLE	2432 BIENVILLE	2700 BIENVILLE	2336 ISLAND SHORES	2360 ISLAND SHORES
2412 BIENVILLE	2422 BIENVILLE	2506 BIENVILLE	2802 BIENVILLE	2340 ISLAND SHORES	2362 ISLAND SHORES
2414 BIENVILLE	2424 BIENVILLE	2512 BIENVILLE	2912 BIENVILLE	2352 ISLAND SHORES	2364 ISLAND SHORES
		2626 BIENVILLE	2930 BIENVILLE	2354 ISLAND SHORES	2366 ISLAND SHORES

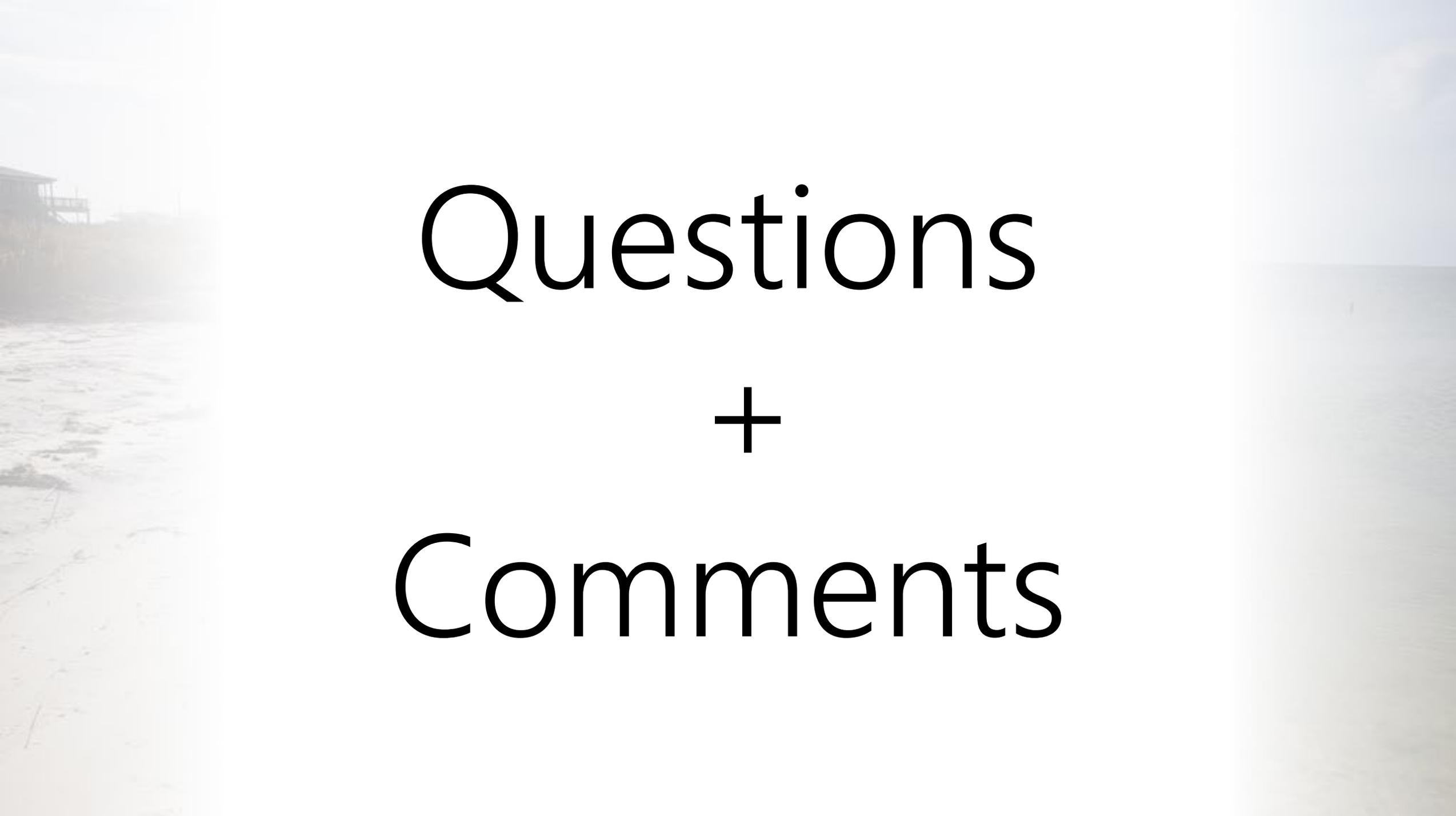
Updated March 11, 2020

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Future Activities

- Completion of site investigations
- Sand source investigation
- Permitting through federal and state regulatory agencies
 - Inland pits vs. open water shoreline restoration
- Phase II – Construction
 - Timeline and construction methods to be determined

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Questions + Comments