



N|V|5

# 2005 Bogue Inlet Relocation - Retrospective

*James Willey, NV5 (Formally Geodynamics)*

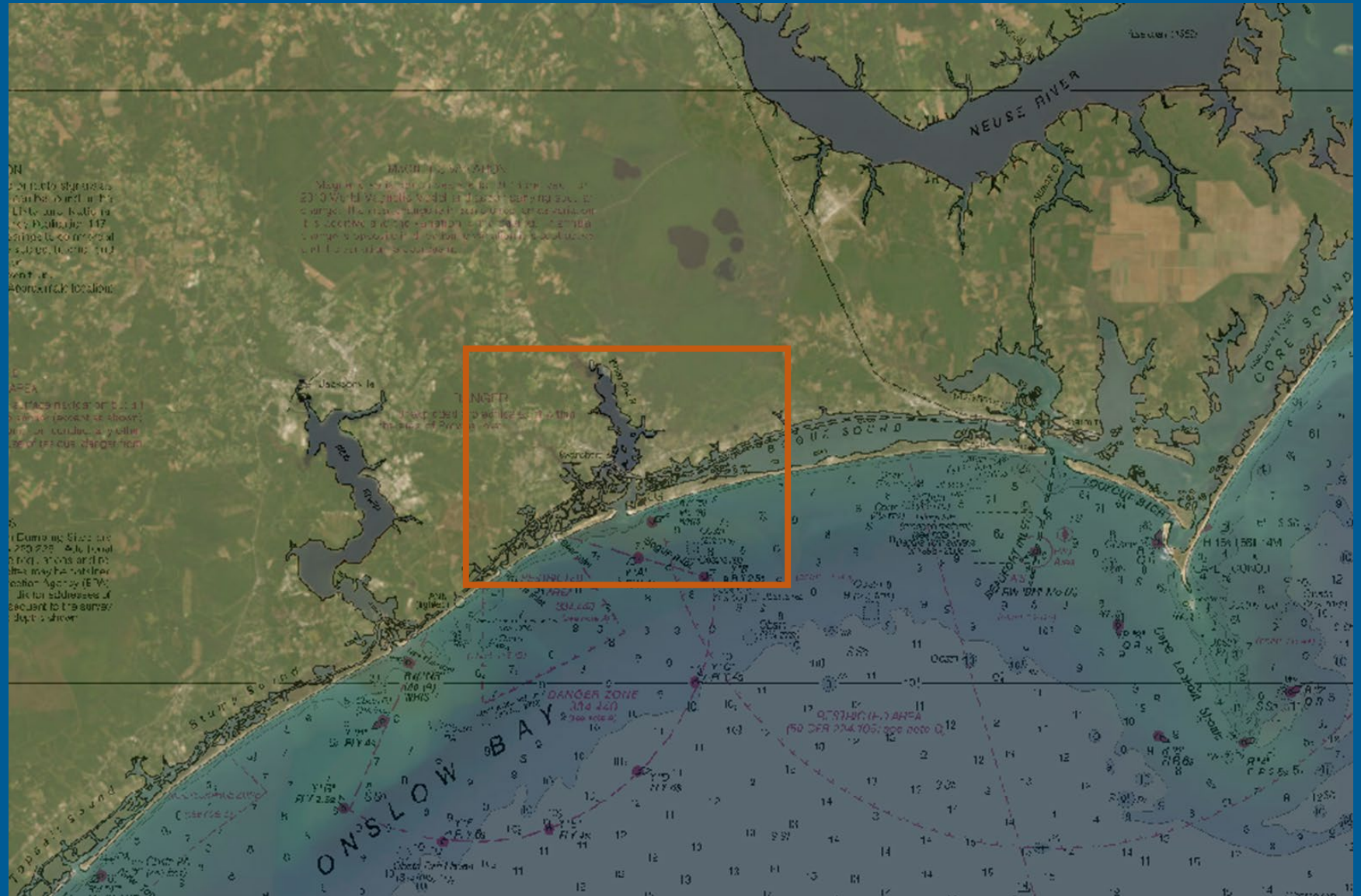


# Project Location

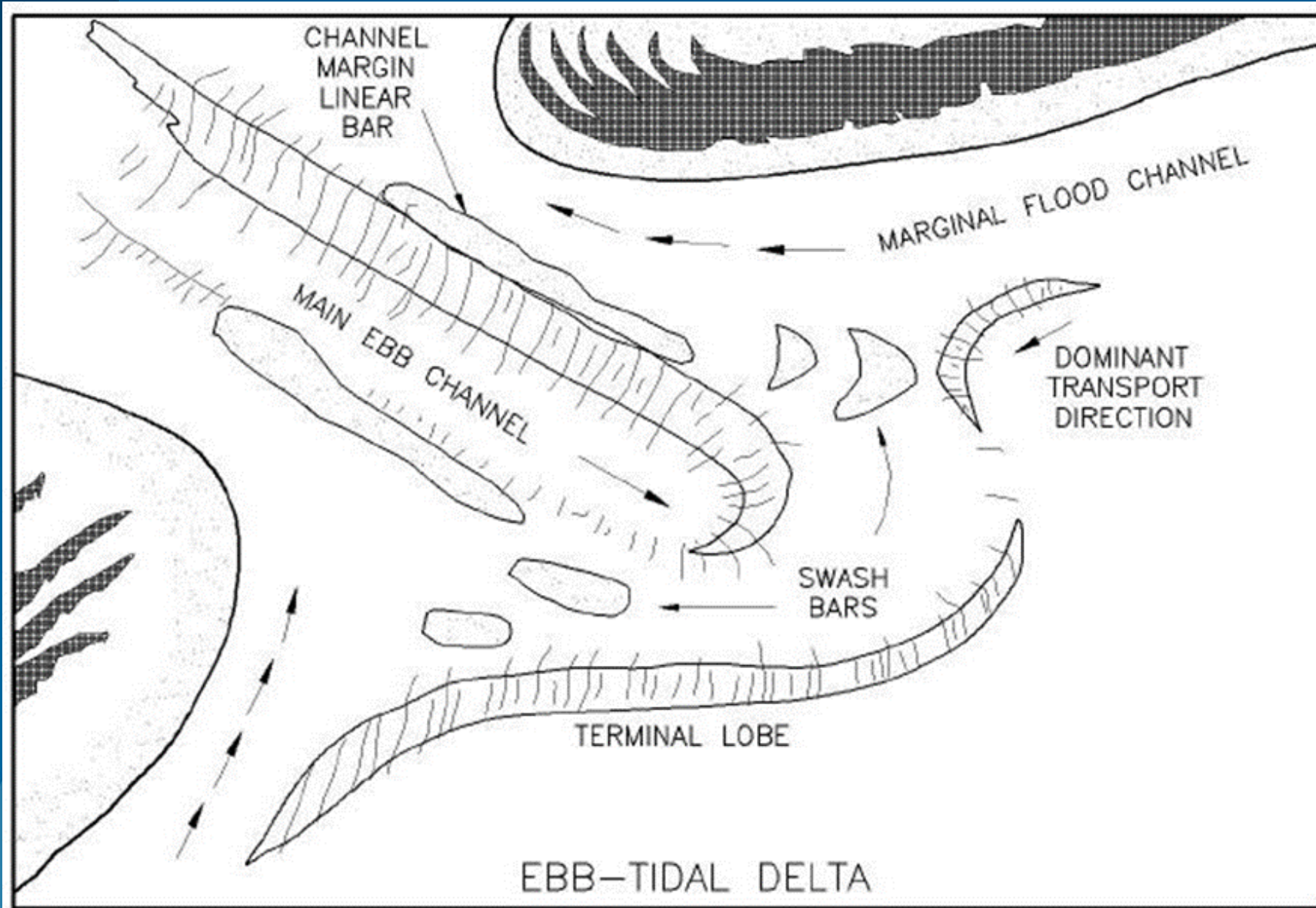
## Bogue Inlet

Carteret County, NC

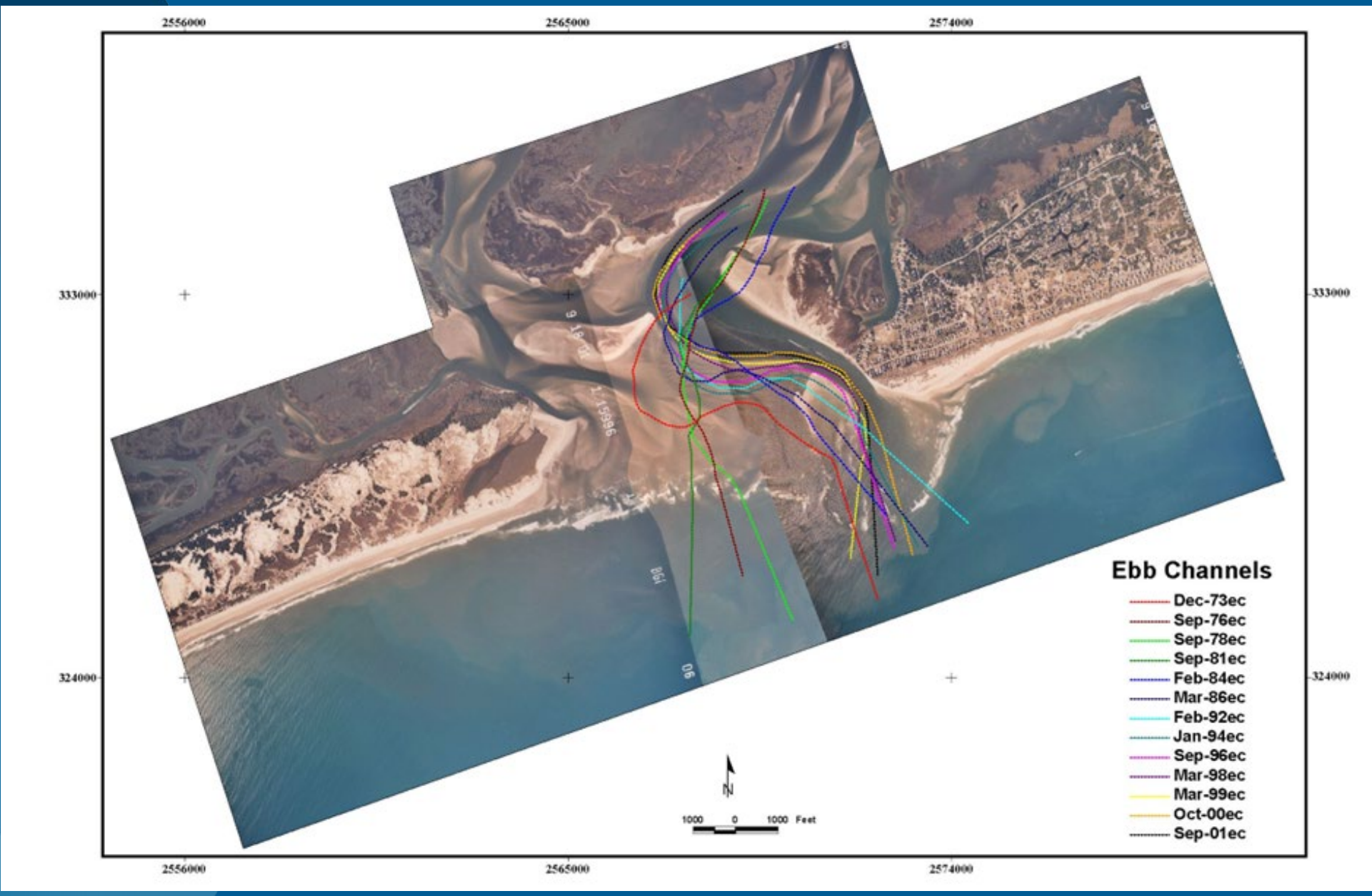
- Ebb-tidal delta at the mouth of the White Oak River
- Separates Bogue Banks from Bear Island



s exist within







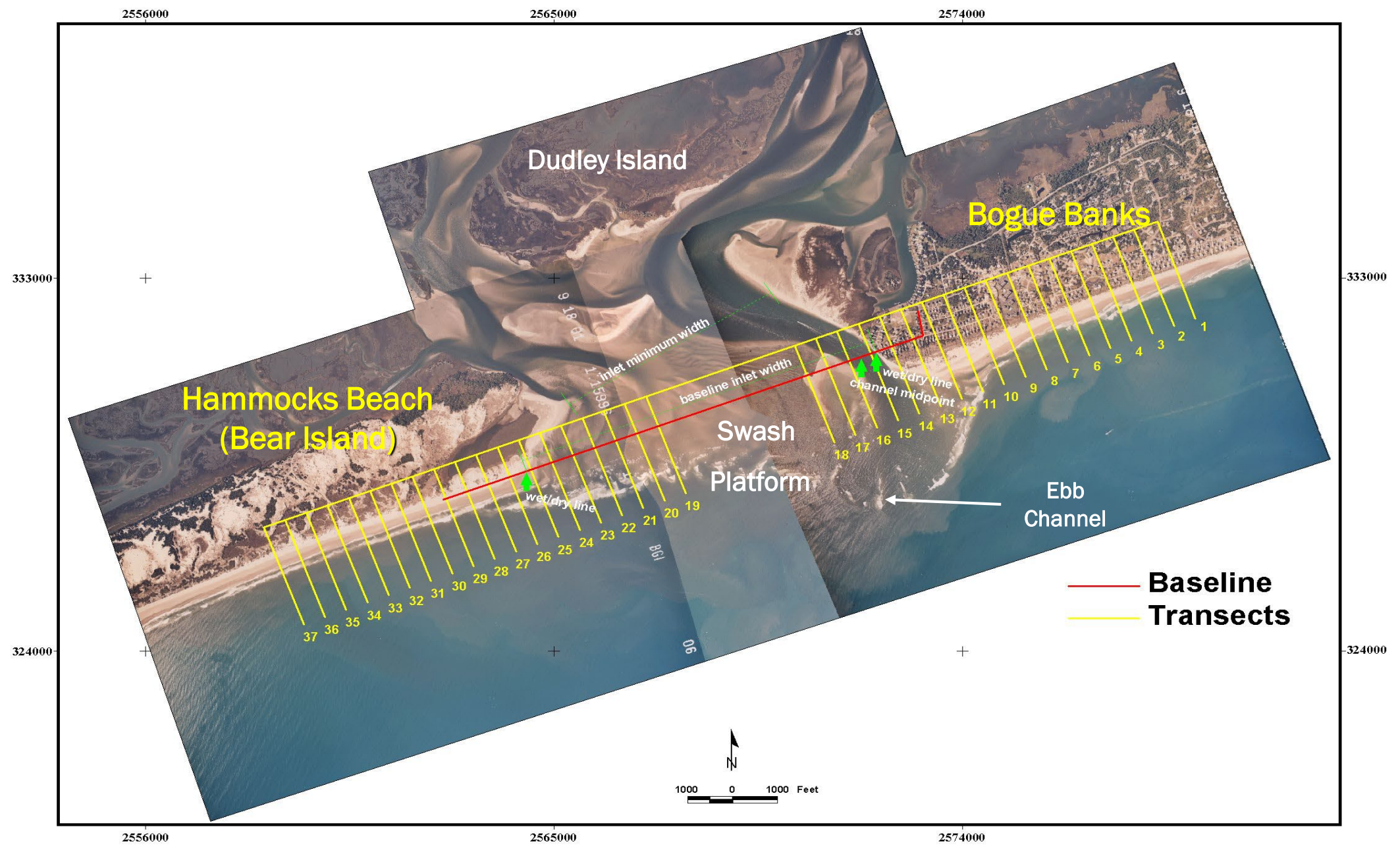
# 2004 – Critical State

## Imminent Property & Infrastructure Loss

*Emergency sandbags failing*







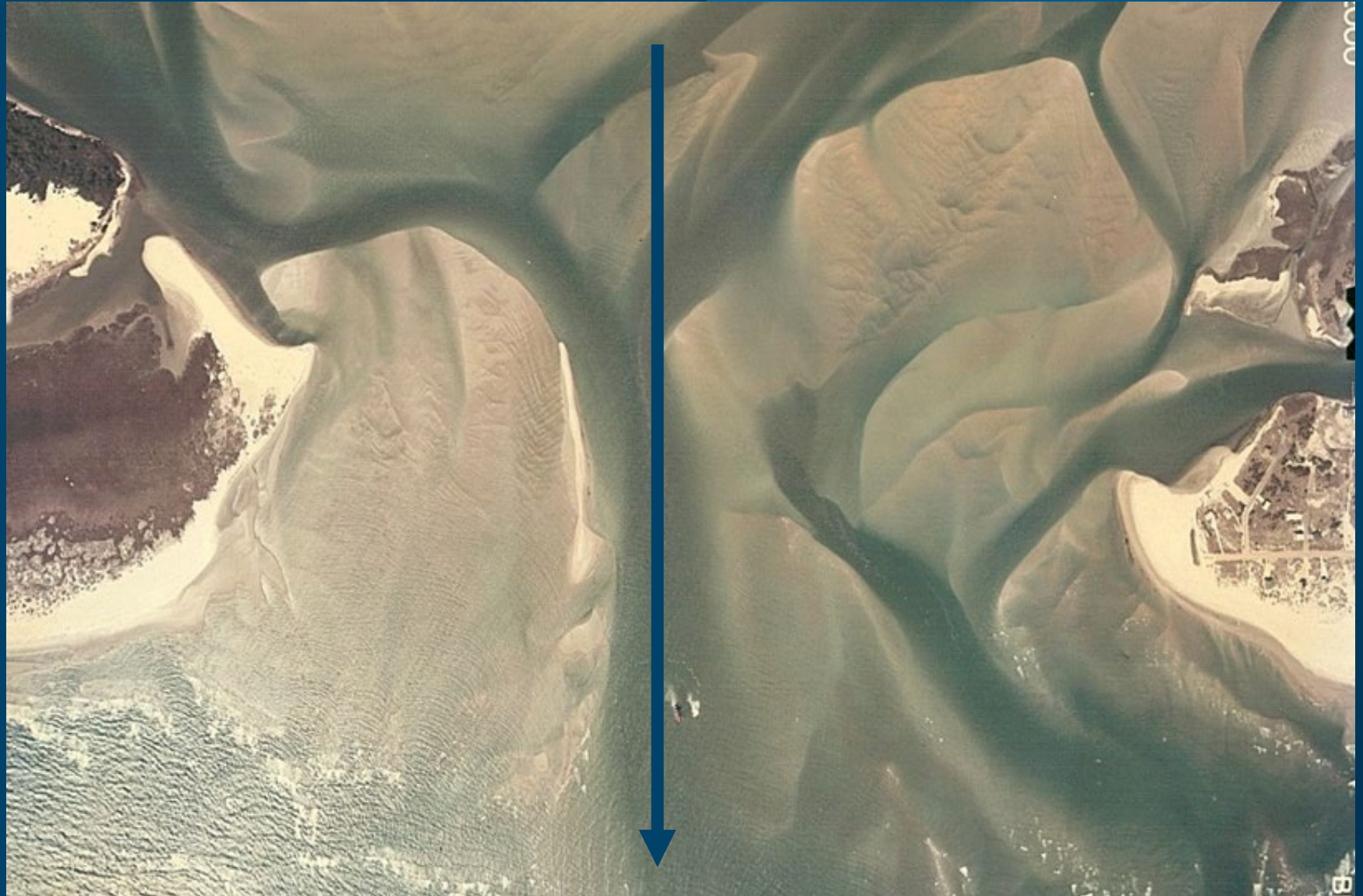


# Selected Channel Alignment

## Leverage Historical Data

*March 1976*

- Design based on the alignment observed in a March 1976 aerial image
- Balance protection for Emerald Island infrastructure without risk for State Park property
- Goal Duration: 15 years

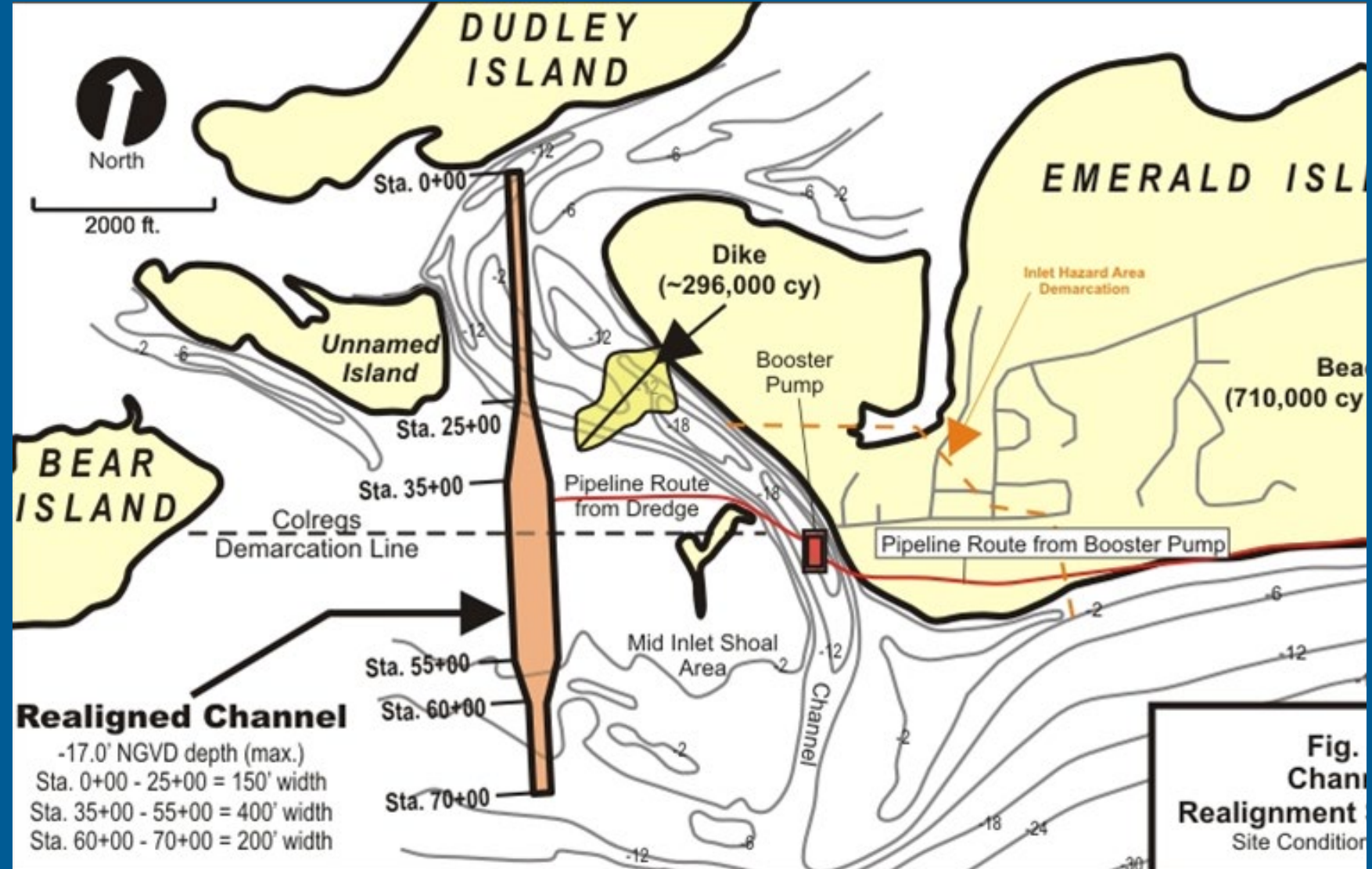


# Design and Construction

February – April, 2005

Over 1,000,000 Cubic Yard

- Approx. 690,900 cubic yards placed on Bogue Banks beach face
- Approx. 316,000 cubic yards utilized to construct dike







Discharge Point  
3/3/05

Begin Beach Fill

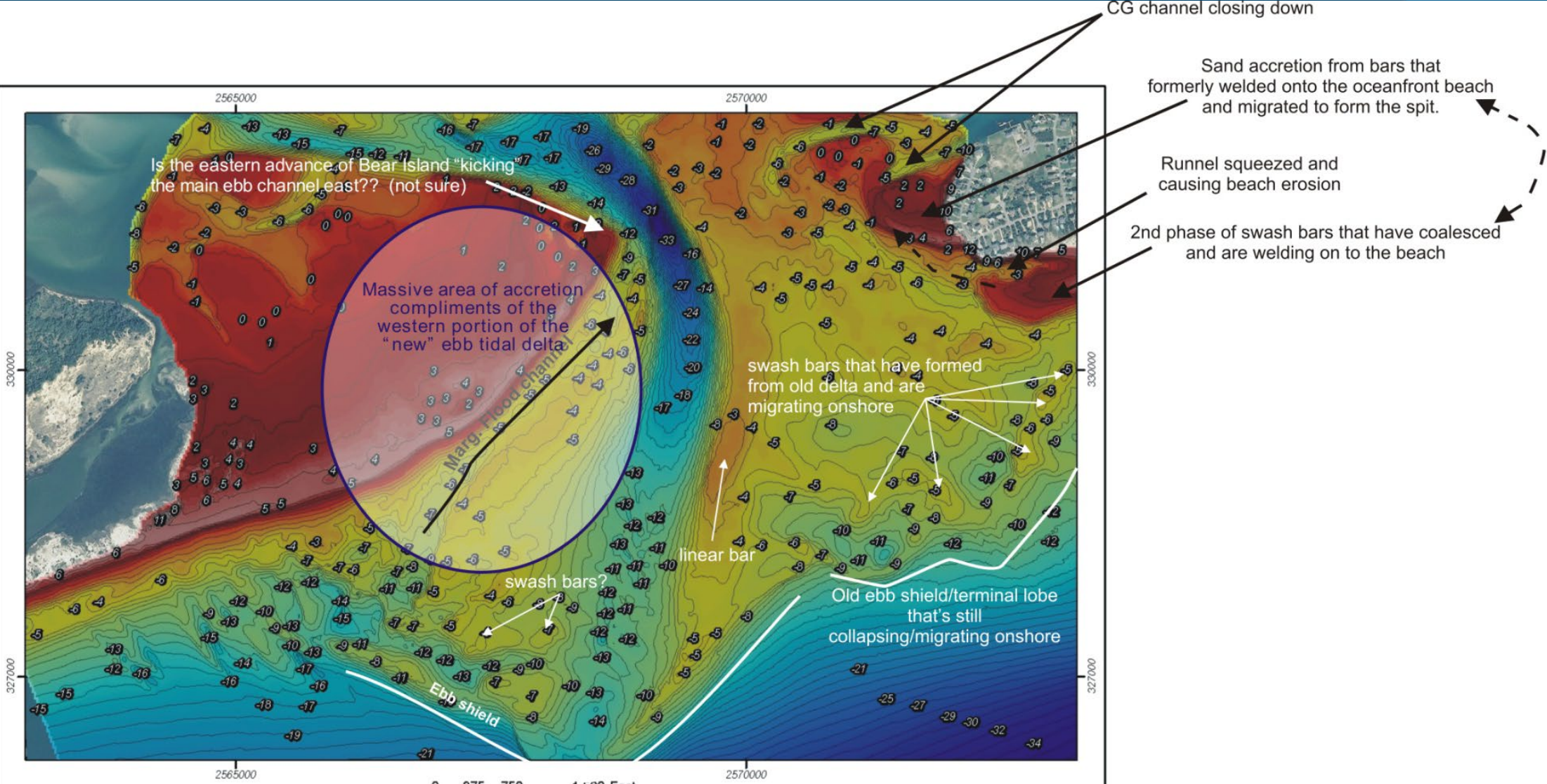
Booster Pump

Submerged Pipe

Floating Discharge Pipe

Dredge *Borinquen*





Legend	
DEM	
Elevation (ft, nava88)	
	High : 15.00
	Low : -47.25

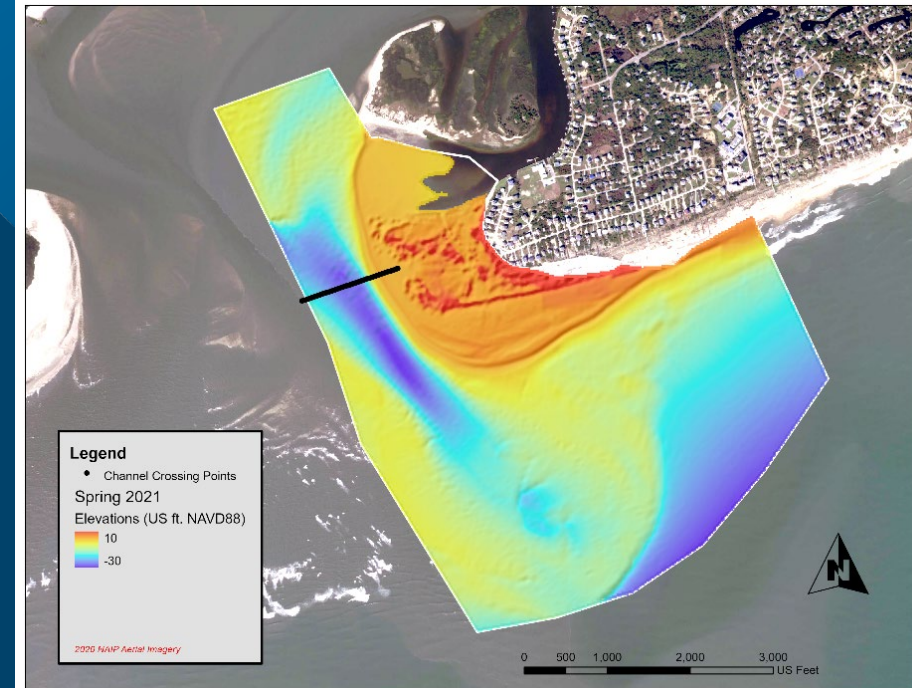
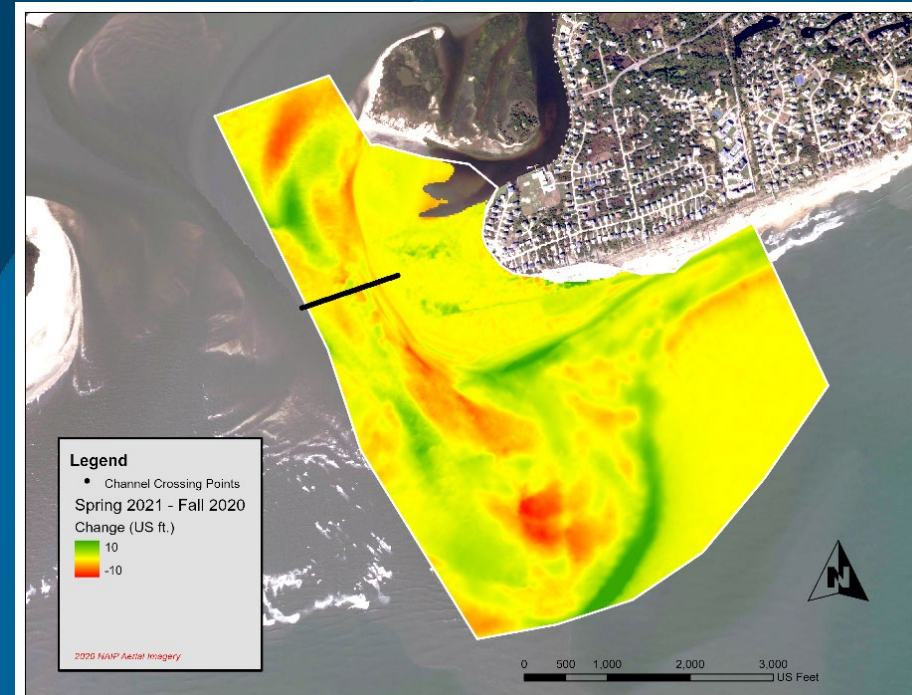
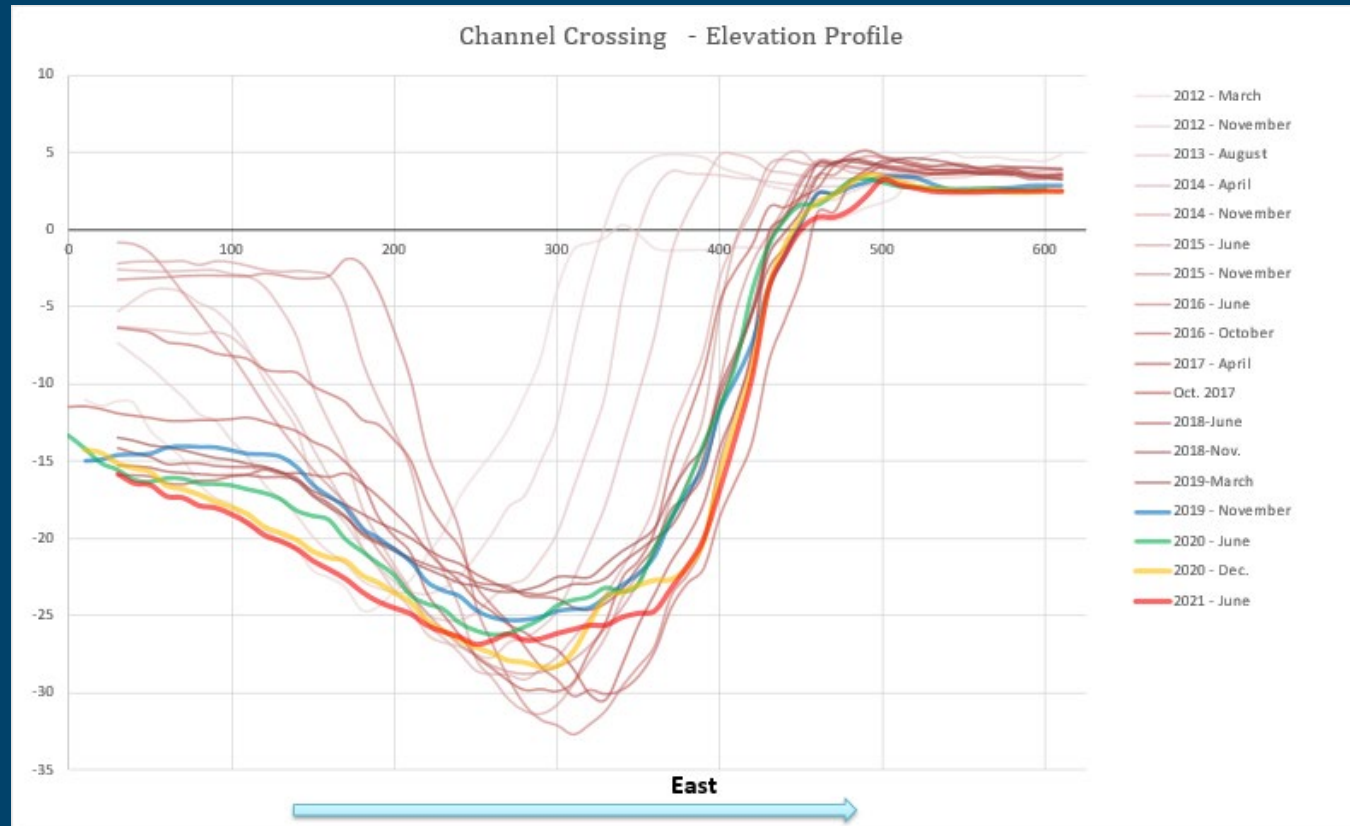
Notes:

	 <b>Bogue Inlet</b> <b>Topo-Bathy Surveys</b>		
	Sheet No:	Drawn By: Dave Bernstein	
	Stamp:	Reviewed By: Chris Freeman	Revison: 1.0
 <small>Geodynamics                  133 E. 8th Street                  Asheville, NC 28807                  252-247-9102                  COMPLEX COASTAL CHANGE MADE CLEAR www.geodynamics.com</small>			

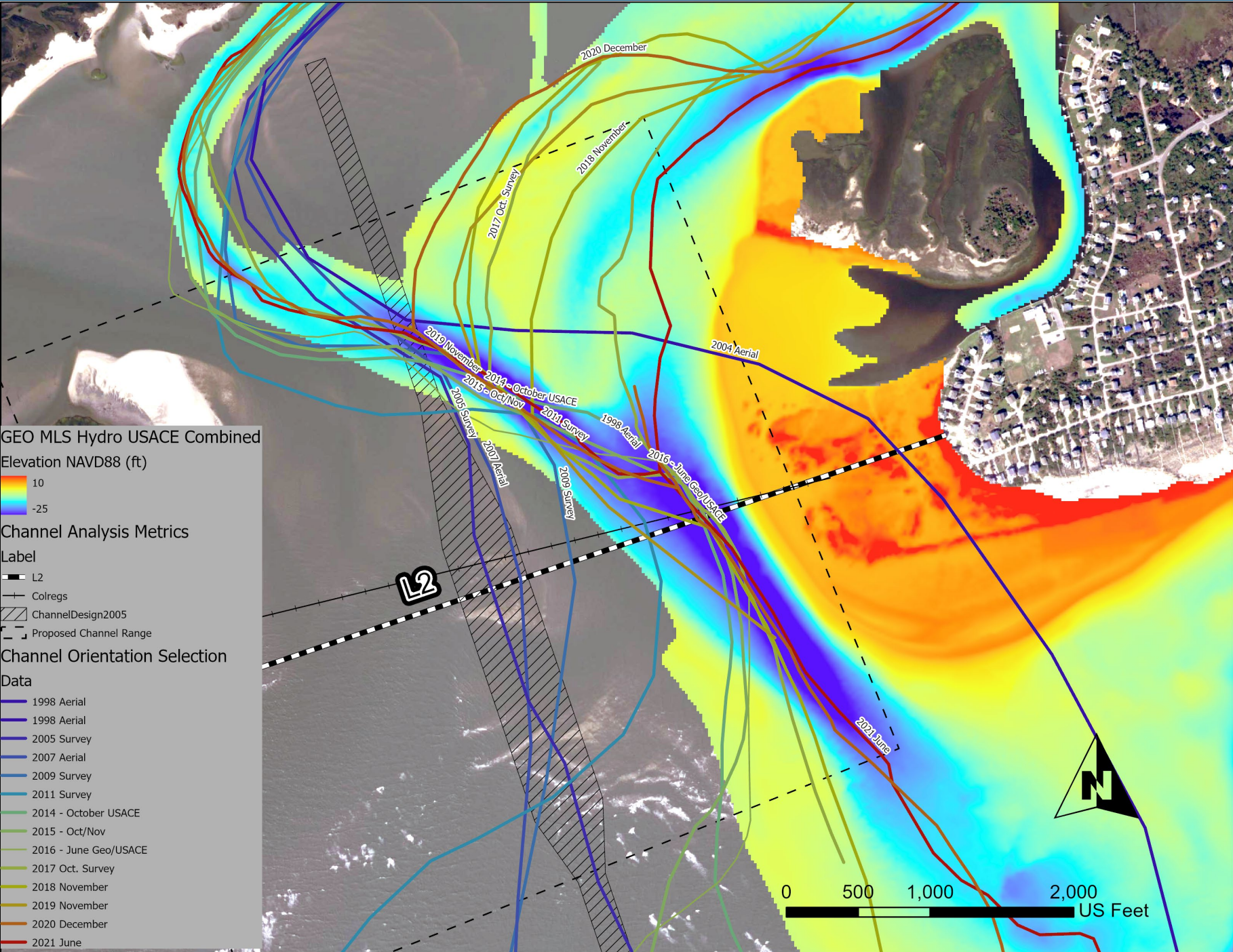


# INLET MONITORING

(Bogue Inlet – June 2021)









# Thanks! Questions?

James Willey

Hydrospatial GIS Services - NV5

*James.Willey@NV5.com*

*252.777.2739*

*Booth #13*

