



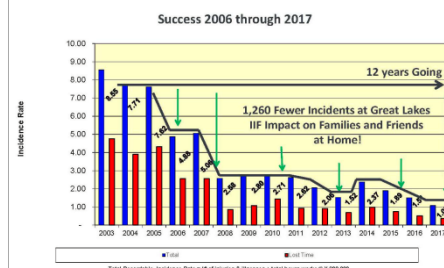
OPPORTUNITIES AND CHALLENGES FOR IMPLEMENTING NNBF AS PART OF DREDGING

GREAT LAKES DREDGE & DOCK COMPANY | IT ALL STARTS WITH DREDGING™

THE CHALLENGES ARE MANY



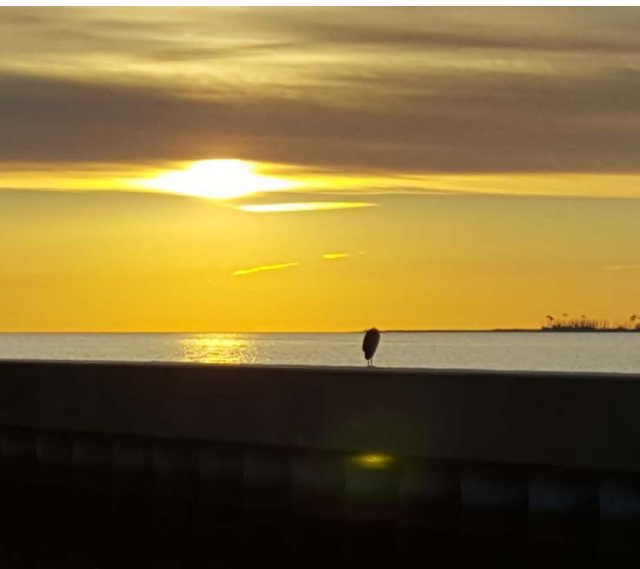
THE CHALLENGES ARE MANY



SAFETY

- The safety of our Colleagues and the Public is our first priority.
- Building NNBF often puts us close to the public on and offshore
- This is an industry-wide effort – “Safety is not proprietary”





THE ENVIRONMENT

- How can dredging support and create a cleaner, more vital environment?
- How can we engage with and improve our practices that safeguard the environment?



THE CHALLENGES ARE MANY



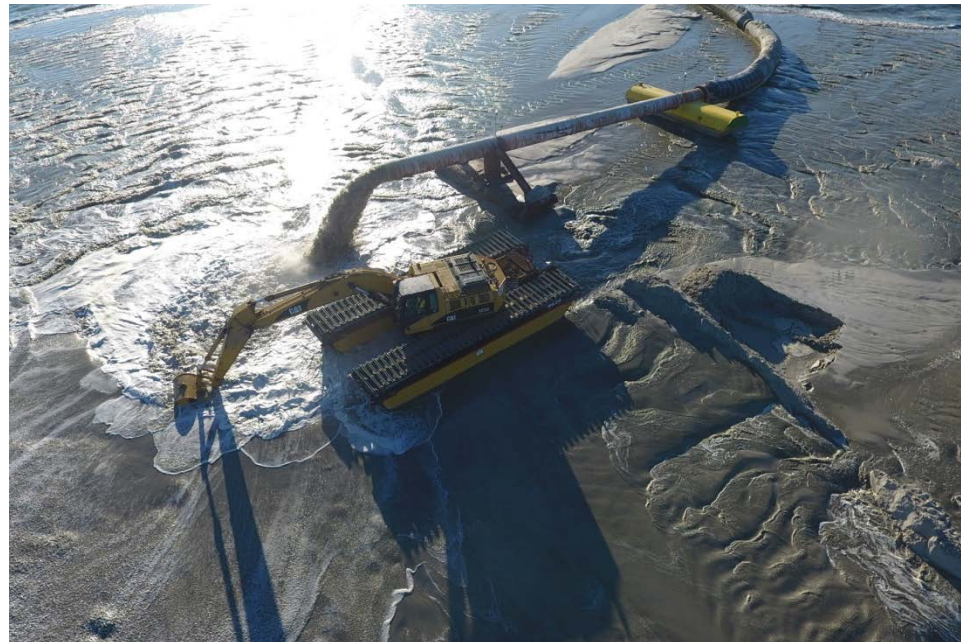
COMMUNITY RELATIONS

- Easement and environmental lawsuits often delay work
- Ultimately it is the public we are protecting with NNBF
- Public support is necessary for continued projects

THE CHALLENGES ARE MANY

EXECUTION

- Mobilization
- Equipment selection
- Fill management
- Demobilization





NAGS HEAD BEACH NOURISHMENT

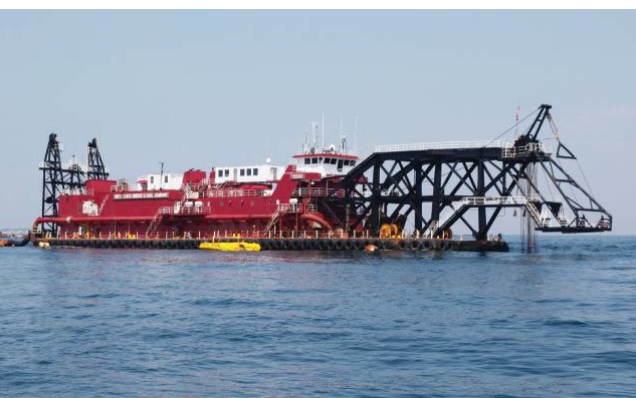




PLANNING TIMELINE

- **November 2006:** The Nags Head Board of Commissioners approved a financing plan for the Town's emergency beach nourishment project.
- **April 2007:** Voters reject the initial bond referendum and financing plan.
- **May 2010:** CAMA permit issued by the North Carolina Department of Environment and Natural Resources and Coastal Resources Commission.
- **July 2010:** The North Carolina General Assembly approves Dare County's request to add another 1% to the county's occupancy tax.
- **November 2010:** The Town receives its beach nourishment project permit from the US Army Corps of Engineers. It allows work during the summer months.
- **December 2010:** The Board of Commissioners pledges occupancy tax revenues to the project, and approves a plan to request easements from property owners.





CONSTRUCTION

- February 2011: Bids submitted between \$28M and \$40M, GLD&D is low bidder.
- May 2011 Construction begins
- June 2011: Superior Court Judge J. Carlton Cole, of the First Judicial District, rules in favor of the Town in a lawsuit filed by 44 property owners challenging the Town's process for obtaining easements for beach nourishment work.
- October 2011: Construction Complete
 - 3.6 Mm³ (4.6 MCY) along 16 km (10 miles) of beach
 - the renourishment widened Nags Head beachfront by 15 – 45m (50 - 150 ft) with a berm elevation of 2m (6 ft) at peak height.
 - 3 TSHD and 1 CSD worked on the project





SCOFIELD ISLAND





SCOFIELD ISLAND



PROJECT OVERVIEW

- 1.5 Mm³ (1.9 MCY) of Beach and 1.1 Mm³ (1.5 MCY) of Marsh on a 4 km (2.5 miles) Island
- Pumped from the Mississippi River to the Gulf of Mexico using a 34 km (21 mile) pipeline
- 2 CSDs and 4 boosters – 27,000 kW (37,000 HP) total pumping power





SCOFIELD ISLAND



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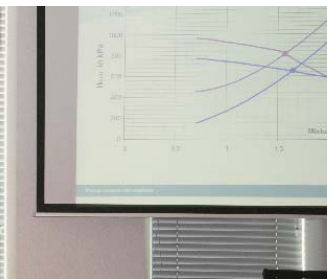
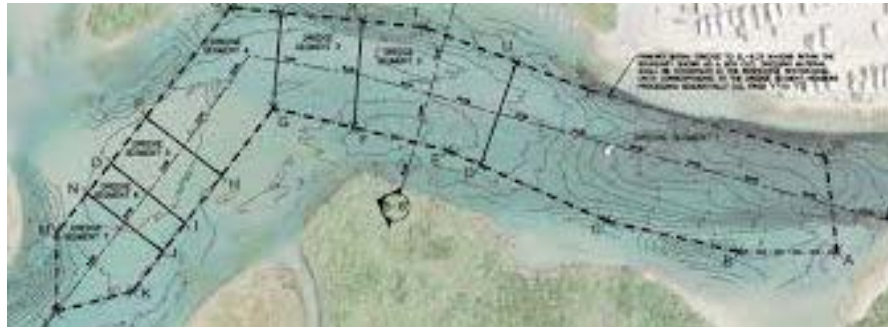
WE HAVE TO MAKE
OUR OWN
OPPORTUNITIES





PUBLIC ENGAGEMENT

- Explain the available NNBF alternatives:
 - Advance the line
 - Hold the line,
 - Retreat/Rollback/Managed realignment,
 - No active intervention / Do nothing
- The goal is citizens who are **informed, consulted, involved and empowered**



EARLY CONTRACTOR ENGAGEMENT

- Leverages contractors' experience and technical prowess
- Provides Insight into:
 - Feasibility / Constructability
 - Realistic schedules
 - Construction risks

COMMUNITIES OF PRACTICE

- Universities
- State and Federal Agencies
- Dredging practitioners
- It all comes together at WEDA!



THANK YOU FOR YOUR ATTENTION

