Engineering With Nature

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US Army Corps of Engineers
BUILDING STRONG®

Engineering With Nature (EWN) is an initiative of the U.S. Army Corps of Engineers (USACE) to enable more sustainable delivery of economic, social and environmental benefits associated with water resources infrastructure.

USACE Navigation Assets

COASTAL NAVIGATION
- 1067 Navigation Projects
- 19 lock chambers
- 13,000 miles of channels
- 929 navigation structures
- 844 bridges

INLAND NAVIGATION
- 27 Inland River Systems
- 207 lock chambers @ 171 lock sites
- 12,000 miles of inland river channels

Some Responsibilities of USACE

- 200 million cubic yards (mcy) of material dredged every year by USACE
  - 50 mcy gets placed in ocean sites
  - Other material placed in upland sites and beaches, as well as used for wetland and marsh creation
- Responsible for creation and maintenance of coastal protection structures

Civil Works in USACE

- Navigation
- Flood and Coastal Storm Damage Reduction
- Environment
- Hydropower
- Regulatory
- Recreation
- Emergency Management
- Water Supply
- Support for Others

$4.71 billion in FY 2013

Engineering With Nature is the intentional alignment of natural and engineering processes to efficiently and sustainably deliver economic, environmental and social benefits through collaborative processes.

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- Use science-based collaborative processes to organize and focus interests, stakeholders, and partners

Guiding Principles

Engineering With Nature is:

- Holistic

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- Innovative
- Adaptive

Examples of *Engineering With Nature*

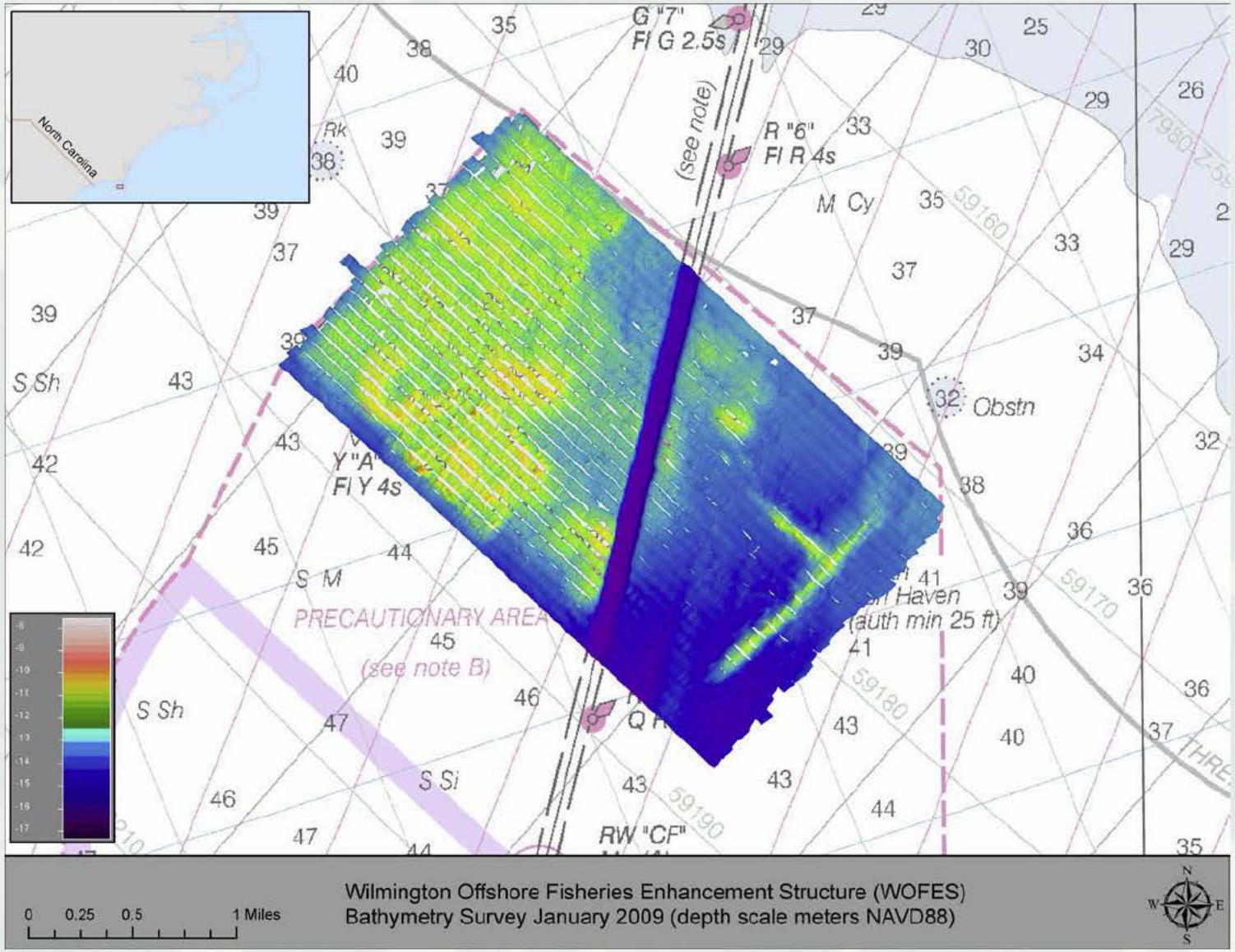
Poplar Island, MD

1996 Aerial Photo

Poplar Island, MD

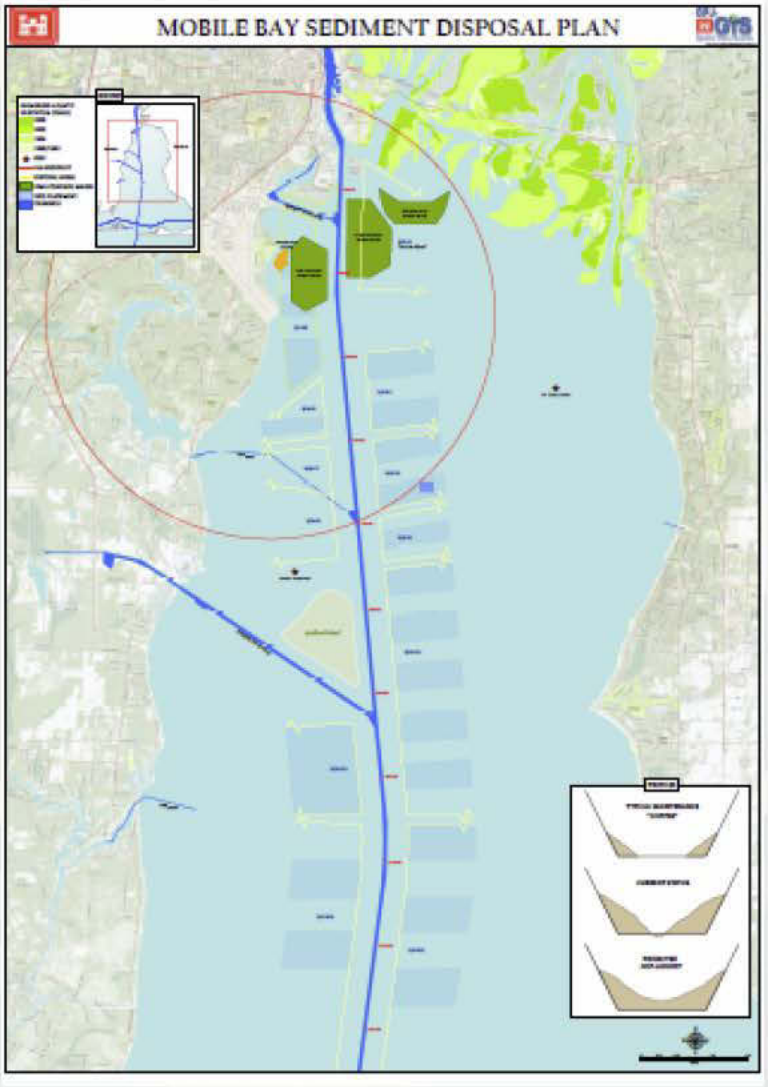
2008 Aerial Photo

Wilmington Offshore Fisheries Enhancement Structure



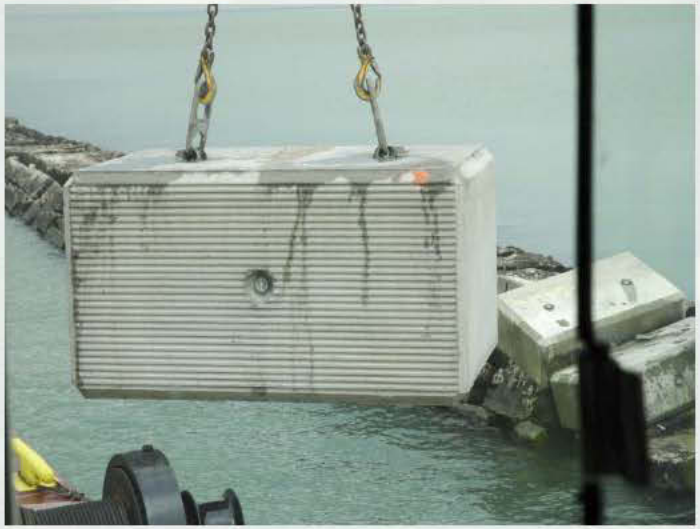
EWN and Beneficial Use

Evia Island,
Galveston Bay



Mobile In-Bay Placement

Cleveland Harbor Pilot Project



Photos Courtesy of Cynthia Banks and Tom Fredette

Opportunities for Participation

- EWN workshop conducted in March 2012
- EWN summary report scheduled for completion by July 2012
- Currently seeking potential partners and collaborators to interview for input on the future direction of EWN

Thank you!

- For more information on EWN or for opportunities to participate please contact either:
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