

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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- ▶ Socially responsive
- ▶ Innovative
- ▶ Adaptive

Examples of
Engineering With
Nature

Poplar Island, MD



1996 Aerial Photo

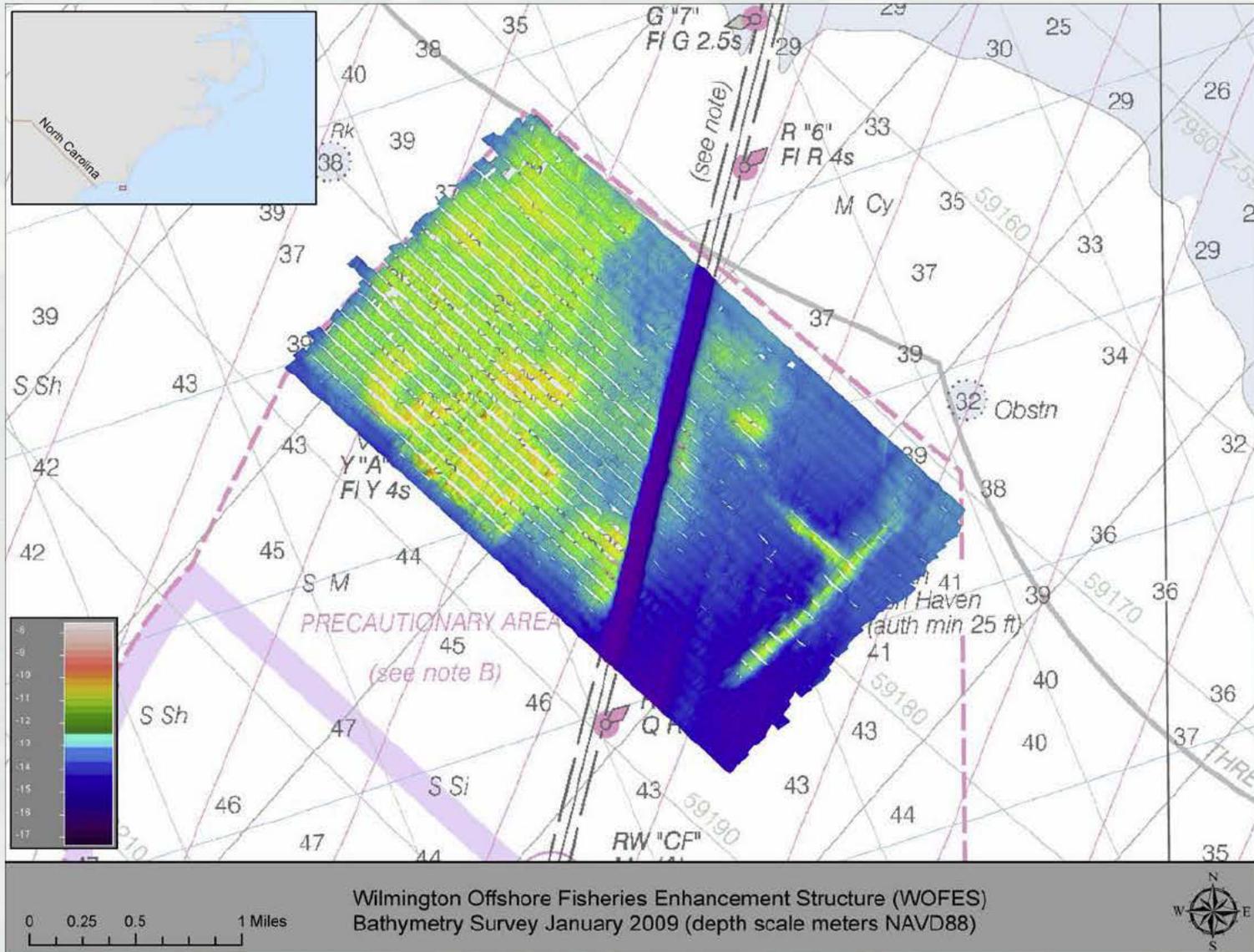
Poplar Island, MD



2008 Aerial Photo



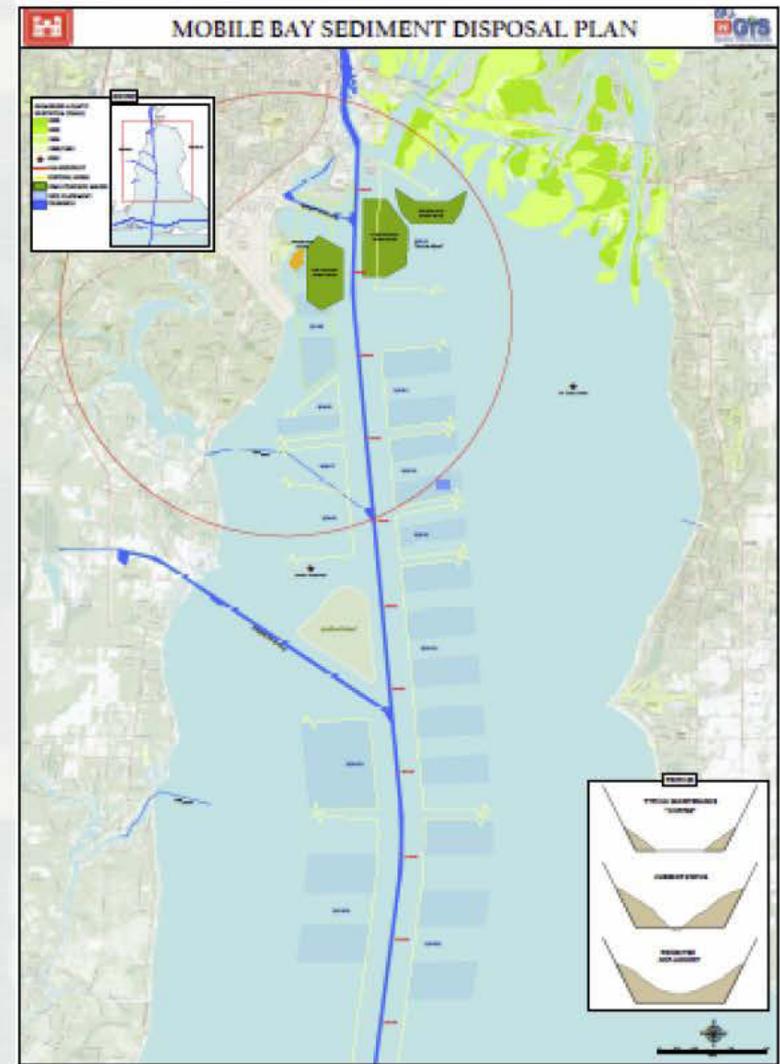
Wilmington Offshore Fisheries Enhancement Structure



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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