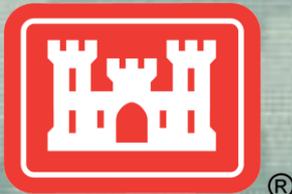




Engineer Research and
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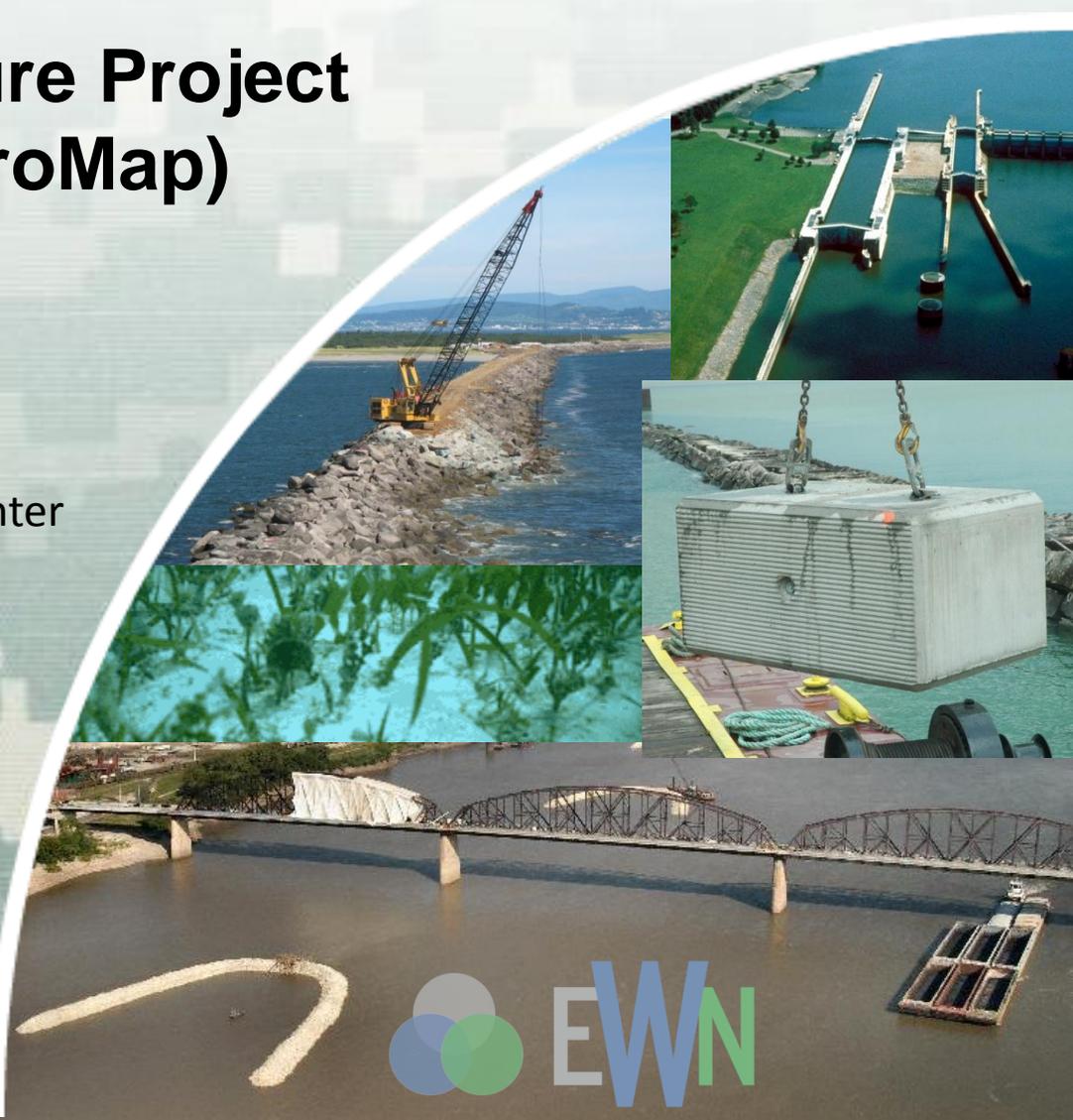
Engineering With Nature Project Mapping Tool (EWN ProMap)

Thomas J Fredette, PhD
Research Biologist
Environmental Laboratory
Engineer Research and Development Center



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US Army Corps of Engineers
BUILDING STRONG®



Outline

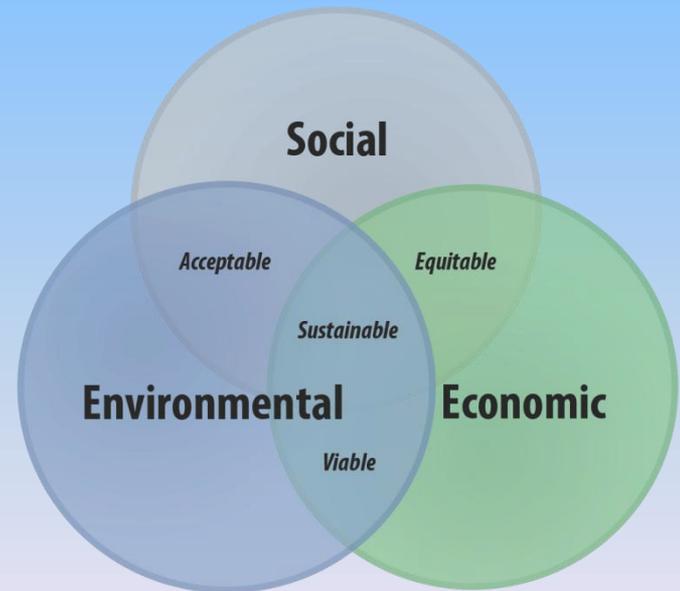
- Engineering With Nature (EWN) Background
- ProMap Database Demonstration
 - Overview
 - Site Tools
 - Site Information Examples
 - Site Screening & Searching
 - Submitting Sites
- ProMap Evolution
- Discussion

Engineering With Nature is...

...the intentional alignment of natural and engineering processes to efficiently and sustainably deliver economic, environmental and social benefits associated with water resources infrastructure through collaborative processes.

Key Ingredients:

- Science and engineering that produces operational efficiencies
- Using natural process to maximum benefit
- Broaden and extend the benefits provided by projects
- Science-based collaborative processes to organize and focus interests, stakeholders, and partners



The USACE Navigation Mission

To provide safe, reliable, efficient, effective and **environmentally sustainable** waterborne transportation systems for movement of commerce, national security needs, and recreation



The USACE Environmental Operating Principles



US Army Corps
of Engineers®

ENVIRONMENTAL OPERATING PRINCIPLES

One Corps Serving The Army and the Nation

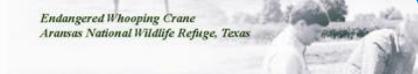
Further information is available at: <http://www.usace.army.mil>



*Environmental
Sustainable Housing
Fort Lee, VA*



*Wetlands at Melvin Price
Lock and Dam*



*Endangered Whooping Crane
Aransas National Wildlife Refuge, Texas*



*Listening to the public at
Lake Hartwell drought meeting*



*Corps labs support research and
development in Far East District*



*Alligator as found
in Everglades*

1 Strive to achieve Environmental Sustainability. An environment maintained in a healthy, diverse, and sustainable condition is necessary to support life.

2 Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of Corps programs and act accordingly in all appropriate circumstances.

3 Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.

4 Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.

5 Seek ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.

6 Build and share an integrated scientific, economic and social knowledge base that supports a greater understanding of the environment and impacts of our work.

7 Respect the views of individuals and groups interested in Corps activities; listen to them actively, and learn from their perspective in the search to find innovative win-win solutions to the Nation's problems that also protect and enhance the environment.





Opportunities/Existing Examples



EWN ProMap (project mapper)

interactive on-line catalog of case studies that apply the EWN concept.

USACE Engineering With Nature
A Look At Engineering With Nature Sites

Map Widget Submit Site About Page

Map Widget

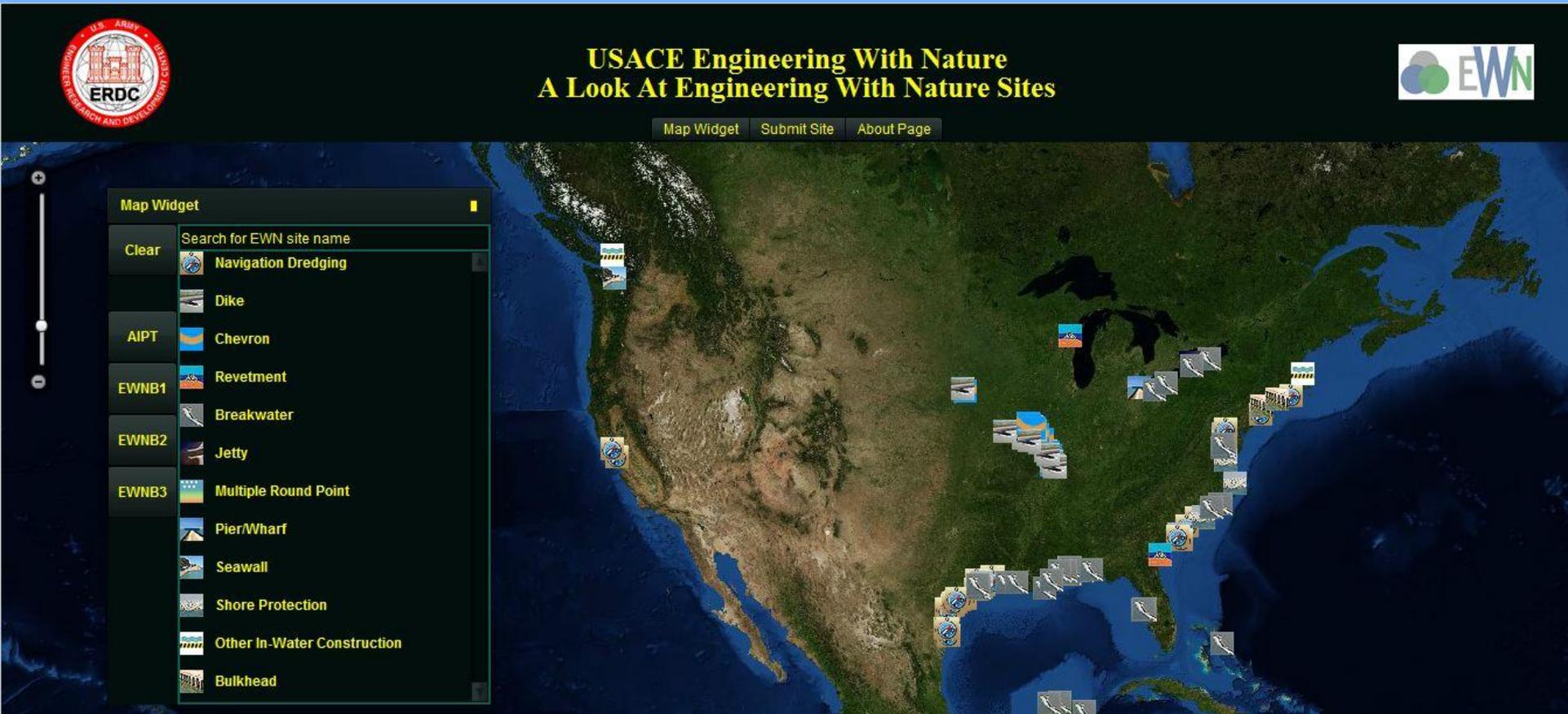
Clear Search for EWN site name

- Navigation Dredging
- Dike
- Chevron
- Revetment
- Breakwater
- Jetty
- Multiple Round Point
- Pier/Wharf
- Seawall
- Shore Protection
- Other In-Water Construction
- Bulkhead

<http://155.82.160.6/applications/opj/V013/public/viewer.swf>
or from <http://el.erdc.usace.army.mil/ewn/index.html>

EWN ProMap (project mapper)

Live Demo



The screenshot displays the EWN ProMap application interface. At the top left is the ERDC logo, which includes the text "U.S. ARMY" and "ENGINEERING RESEARCH AND DEVELOPMENT CENTER". In the top center, the title "USACE Engineering With Nature" is displayed in yellow, with the subtitle "A Look At Engineering With Nature Sites" below it. To the right of the title is the EWN logo, consisting of three overlapping circles in blue, green, and yellow. Below the title and logo are three navigation buttons: "Map Widget", "Submit Site", and "About Page". The main area of the interface is a satellite map of the United States, overlaid with numerous small icons representing different engineering projects. On the left side, there is a "Map Widget" panel. This panel includes a search bar with the placeholder text "Search for EWN site name" and a "Clear" button. Below the search bar is a list of project types, each with a small icon and a text label: "Navigation Dredging", "Dike", "Chevron", "Revetment", "Breakwater", "Jetty", "Multiple Round Point", "Pier/Wharf", "Seawall", "Shore Protection", "Other In-Water Construction", and "Bulkhead". The "Map Widget" panel also features a vertical slider on its left side for zooming in and out of the map.

<http://155.82.160.6/applications/opj/V013/public/viewer.swf>

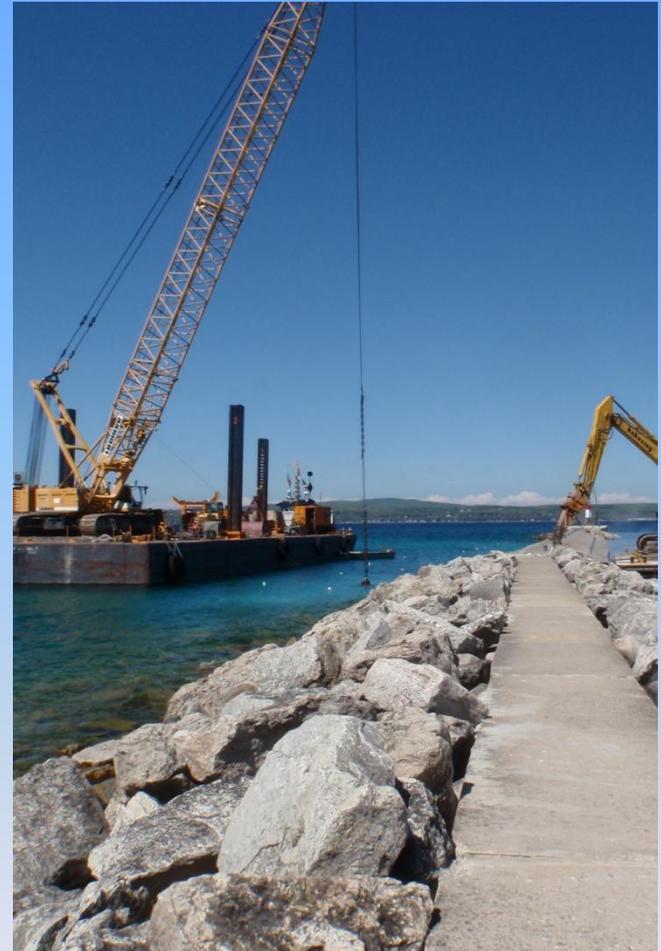
or from <http://el.ercd.usace.army.mil/ewn/index.html>

ProMap Evolution

- Currently based on
 - Esri's ArcGIS Application Programming Interface (API) for Flex 3.0
 - ArcGIS Online
- Moving to
 - HTML5/CSS/JavaScript architecture
 - ArcGIS Portal
 - Better Photo & Document Capabilities
 - Greater Collaboration Options
 - Easier Maintenance



Discussion



Thanks

- Tom Fredette
- thomas.j.fredette@usace.army.mil
- 978-318-8291
- <http://el.erdc.usace.army.mil/ewn/index.html>

