



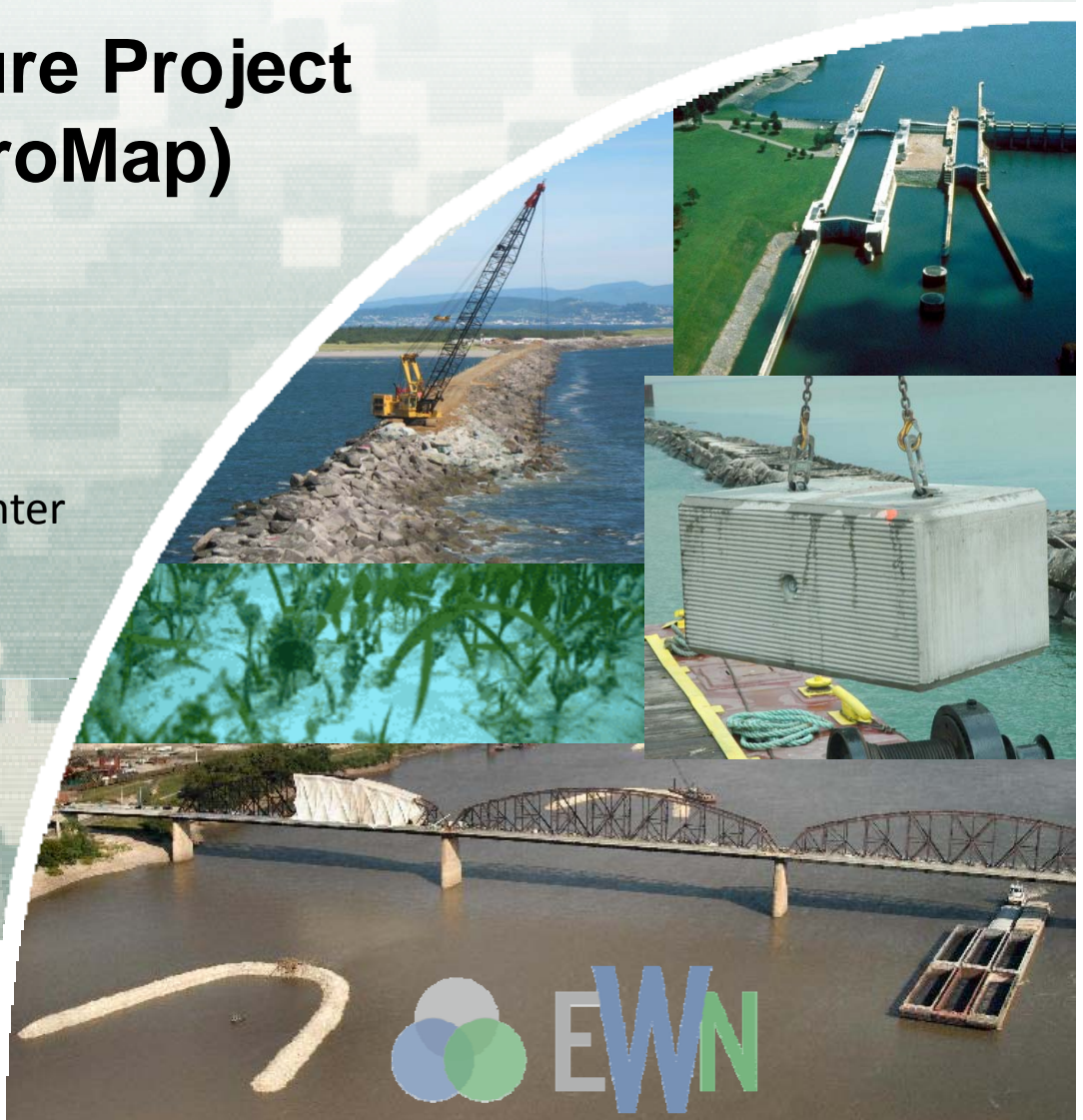
Engineer Research and  
Development Center

# Engineering With Nature Project Mapping Tool (EWN ProMap)

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US Army Corps of Engineers  
**BUILDING STRONG®**



# Outline

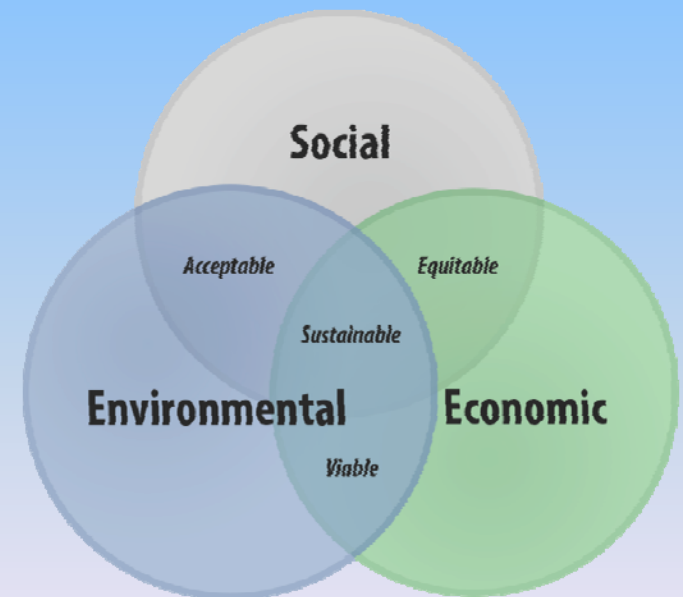
- Engineering With Nature (EWN) Background
- ProMap Database Demonstration
  - Overview
  - Site Tools
  - Site Information Examples
  - Site Screening & Searching
  - Submitting Sites
- ProMap Evolution
- Discussion

# 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*



*Endangered Whooping Crane  
Aransas National Wildlife Refuge, Texas*



*Planting a tree within  
Mississippi Delta*



*Listening to the public at  
Lake Hartwell drought meeting*



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

**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.



<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



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

or from <http://el.erdc.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

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