



US Army Corps of Engineers® BUILDING STRONG®



Engineering With Nature Geographic Project Mapping Tool (EWN ProMap)

E. Michelle Bourne, Todd S. Bridges, Ph.D., and Burton C. Suedel, Ph.D. Point of Contact: <u>Michelle.Bourne@usace.army.mil</u>; 601-634-3836

The Engineering With Nature Project Mapper (EWN ProMap) is a geography-based data viewer, or interactive on-line catalog, for projects that fit within the EWN context. The aim of the mapper is to allow users to explore information that can be helpful in developing EWN ideas during the planning of their own projects (see Figure 1). Projects can be viewed based upon associated infrastructure project type (e.g., navigation dredging, breakwater, shore protection) or by their intended environmental or social benefits (e.g., beach nourishment, habitat creation, recreation).

EWN ProMap Content and Capabilities:

- Nearly 200 projects; includes PIANC Working with Nature (WwN) certified projects
- Most projects are in the United States with growing international representation

Figure 1: EWN ProMap Homepage











- Project display ranges from global scale to project scale (Figure 2)
- Projects can be searched and/or displayed by the associated infrastructure project type (AIPT), the intended EWN benefits (Table 1), or as a WwN project
- Numerous basemaps are available for selection (e.g., topography, satellite, etc.) (Figure 2)
- Pop-up boxes provide project details, related project web links, and project pictures where available (Figure 3)
- Filter projects by searching project name or keywords
- Determine project longitude and latitude measurements and determine project area (square miles) or distance (miles) between multiple projects
- Internal and external (i.e., the public) users can submit new case studies for approval to be included in the database

Table 1: AIPT and EWNB Selections in the Tool Panel	
Available AIPT	Available EWN Benefit
Selections	Selections

Figure 2: Various Project Scale and Basemap Options



Breakwater	Aesthetics
Bulkhead	Beach nourishment
Chevron	Bird habitat
Dike	Fish habitat
Groin	Invertebrate habitat
Jetty	Island restoration
Multiple round point	Mammal habitat
Navigation dredging	Recreation
Pier/wharf	Reptile habitat
Revetment	Shore protection
Seawall	Vegetated habitat
Shore protection	

Do you have a project that you think should be included in our EWN ProMap?

Consider the EWN essential ingredients which have been rephrased as criteria that can be used to describe the degree to which a project applies the EWN concept. These criteria are:

• Extent to which natural processes are used to produce benefits and outcomes.

Figure 3: Pop-up with Project Details, Links, and Pictures



- Extent to which the project and its configuration broaden the base of benefits provided (economic, social, and environmental).
- Extent to which the project makes use of collaborative processes to organize and focus interests, stakeholders, and partners.
- Extent to which the project produces and makes use of efficiencies to contribute to sustainable delivery of project benefits, including consideration of how the project function is sustainable in the broader systematic context (e.g., regional watershed or sediment systems).

https://ewn.el.erdc.dren.mil/ProMap.html

INNOVATIVE SOLUTIONS for a safer, better world

"Research supported by the US Army Corps of Engineers, Engineer Research and Development Center. The views expressed are those of the authors and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government."

www.erdc.usace.army.mil