



The Corps

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Environment



EVERGLADES

Corps of Engineers
helps protect, restore
nation's ecosystem

22

Environmental Operating Principle #4

Continue to meet our corporate responsibility and accountability under the law for activities undertaken by the Corps, which may impact human and natural environments.



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Send articles, photos, events, letters or questions to the editor, at Corps-Environment-Magazine@usace.army.mil.

Submission deadlines are indicated in red:

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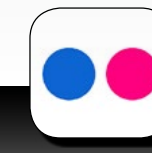
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www.usace.army.mil/Missions/Environmental.aspx





Sarah Murdock, director of U.S. climate resilience and water policy for The Nature Conservancy, believes the Natural Infrastructure Initiative and the Engineering With Nature® initiative have shared goals and common interests of promoting the use of natural infrastructure to realize multiple benefits. (Photo by David Ryan)

Unexpected partnership advances mutual goals

In October 2019, work with The Nature Conservancy helped restore the Lightning Point project in Alabama and created 1.5 miles of breakwaters, including two new jetties and 40 acres of coastal habitat consisting of scrub shrub, tidal marsh and tidal creeks to reset the foundation of Bayou La Batre's once-healthy natural waterfront. (Photo by Hunter Nichols for TNC).

By Holly Kuzmitski
U.S. Army Engineer Research and Development Center

They seem like an unlikely pair: the U.S. Army Corps of Engineers and The Nature Conservancy.

What could a federal agency that develops large-scale infrastructure projects have in common with a 501(c)(3) environmental organization? The answer from the Corps' side is the Engineering With Nature, initiative; from TNC's perspective, it's the opportunity to promote natural infrastructure investments, in part, through its relationship with the Natural Infrastructure Initiative (NII).

Sarah Murdock, director of TNC's U.S. Climate Resilience and Water Policy, describes the NII as a collaboration of partners that came together after the 2015 Restoring Natural Infrastructure Summit.

"NII brings together private-sector and non-government organizations and academia," she said. "Founding members include TNC; Caterpillar Inc.; Great Lakes Dredge and Dock Company; AECOM, an international engineering firm; Ducks Unlimited; and the University of Georgia."

Murdock described the goals and visions of EWN.

and NII as very aligned and similar.

"We look at how we can work together to promote the use and investment in natural or nature-based approaches to achieve maximum benefits," she said.

"EWN and NII are definitely in sync," said Dr. Jeff King, deputy national lead of the EWN initiative. "We're jointly pursuing communication at the highest levels to get the public and decision-makers engaged about natural infrastructure and why it should be prioritized."

Murdock described how natural infrastructure generally refers to work that restores the function of ecosystems while increasing resilience within natural systems.

"We're really talking about reconnecting floodplains and protecting and restoring marshes, sand dunes, reefs and mangroves," she said. "We're thinking about work that is seeking to maximize not only the benefit of those ecosystem functions, but the environmental, economic and societal or community benefits. So we're thinking about nature in that context, and the benefits to both people and nature itself."

She sees EWN as approaching these goals from a scientific and technical perspective, conducting demonstrations on how best to utilize and work with nature, where the right locations are to implement these solutions, and what the right techniques and guidance are when investing in natural infrastructure.

Murdock thought the creation of "Engineering With

Nature, an Atlas" was valuable, and pointed out that TNC, along with National Association of Counties, the Association of State Floodplain Managers and others created something similar, the Naturally Resilient Communities, a website (www.Nrcsolutions.org) that also showcases case studies of successful projects. She feels that because it's still a new way of thinking and a new way of executing projects, it's important to illustrate what investing in nature and using nature-based approaches actually mean.

The two groups also teamed up last year to do a couple of briefings on Capitol Hill, to members of Congress and their staff.

"I'll say I've been working on and communicating these issues on the Hill for the last five years or so," she said. "While I've been in this U.S. government relations position, I've seen a huge transformation in Congress's understanding of natural infrastructure. The phrase has now been codified into various statutes like the Water Resources Development Act."

Murdock thinks natural infrastructure is a very bipartisan issue.

"I've seen several hearings in the last six months where members from both sides of the aisle are talking about the need to invest in resilience and how nature can help play a role in enhancing resilience," she said. "It's great to see that kind of understanding grow. I really think

because EWN and NII are an unusual partnership, people pay attention when we walk through the door together; it piques people's curiosity and garners some attention."

NII has been working with the U.S. Army Engineer Research and Development Center to help devise the Natural Infrastructure Opportunities Tool (NIOT, <https://ewn.el.erdc.dren.mil/tools.html>). This application helps align the supply and demand of dredged sediment. The idea behind the tool is that opportunities for natural infrastructure construction and ecosystem restoration projects can be maximized through shared knowledge about availability of, and need for, dredged sediment, similar to the way it's being optimized in TNC's project for Lightning Point, Alabama.

"We hope to continue our close collaboration with the EWN initiative as both TNC and the NII," Murdock said. "We'll continue to champion the EWN initiative within the Corps and find ways to promote the work both within and outside the Corps."

"And then there's definitely a need to think about advancing policy solutions to challenges that are ongoing like how best to measure ecosystem services, so that we can fully account for all of the benefits that natural infrastructure projects deliver," Murdock said.

For more information about the EWN initiative, please visit www.engineeringwithnature.org.

