

Engineering With Nature Design Short Course
Tuesday, September 13, 2022 1pm-5pm
Westin Long Beach, Long Beach, California

SUMMARY:

Engineering With Nature[®] (EWN[®]), in partnership with Coastal Zone Foundation, is leading a four-hour course on designing natural-based infrastructure for increased coastal resilience. The course will include a series of technical presentations that cover a broad range of topics related to natural infrastructure (NI), including an overview of the EWN program, an introduction to NI applications in coastal wetlands and beaches, an overview of EWN Beneficial Use best practices, a description of available EWN design and modeling tools and materials, a review of the NNBF guidelines, and case studies describing the use of EWN Engineering tools.

OBJECTIVE:

- 1) Provide participants with an overview of the EWN[®] program, including its strategic program elements, R&D efforts, partnerships, policy efforts, and real world applications.
- 2) Demonstrate how NI promotes coastal resilience, flood risk reduction, and ecosystem services.
- 3) Introduce participants to EWN[®] tools, materials, and solutions.
- 4) Share the innovative research being conducted within the EWN program.
- 5) Extend the opportunity for others to get involved.

AGENCIES:

USACE, FEMA, NOAA, USFWS, USEPA, USDOT, DoD, State and Local Governments

LOCATION:

ASBPA National Coastal Conference, Long Beach, CA

PRESENTERS:

Dr. Amanda Tritinger (USACE), Dr. Burton Suedel (USACE), Margaret Owensby (USACE), Dr. Arye Janoff (USACE), Tiffany Cheng, PE (USACE), Dr. Jackie Brower (Moffatt & Nichol)

Time	Topic/Action	Lead/Speaker
1300 - 1320	<p>Opening remarks</p> <p>Short Course Introduction to EWN – Strategic Program Elements, Research and Development at ERDC, Partnerships, Policy Efforts, Application around the Nation</p> <ul style="list-style-type: none"> - Pass Out Exam Materials - Pass Out EWN Books <p><i>Sign In</i></p>	<p>Amanda Tritinger <i>USACE/ERDC</i></p>
1320 - 1350	<p>Introduction to NI in Coastal Wetlands</p> <p>Overview of Mangroves, Salt Marsh, Oysters - EWN Applied Research, Outcomes, Lab Studies, Modeling capabilities, and Case Studies</p> <ul style="list-style-type: none"> - Show Mangrove Flume Video <p><i>5 to 10 minutes for questions</i></p>	<p>Burton Suedel <i>USACE/ERDC</i></p>
1350 - 1430	<p>EWN Shoreline Protection</p> <p>Introduction and site evaluation and design considerations for</p> <ol style="list-style-type: none"> 1) beach, dune, and berm creation, nourishment for beach stabilization on the coast, and; 2) Living shorelines for shore protection in Estuarine Environments. <p><i>5 to 10 minutes for questions</i></p>	<p>Jackie Brower <i>Moffatt & Nichol</i></p>
1430 - 1500	<p>EWN Beneficial Use Best Practices:</p> <p>Overview of the San Francisco Proving Ground District strategic sediment placement pilot project and EWN engineering tools</p> <p><i>5-10 minutes for questions</i></p>	<p>Arye Janoff <i>San Francisco District, USACE</i></p>
1500 - 1515	<p>Break</p> <p><i>15 minute break</i></p>	

Time	Topic/Action	Lead/Speaker
1515-1545	EWN Engineering Tools Overview of available NNBF tools and project examples of how NNBF engineering tools are used. <i>5 minutes for questions</i>	Tiffany Cheng <i>San Francisco District, USACE</i>
1545-1630	EWN Engineering Design/Modeling Overview of EWN design and modeling tools, materials, and tutorials. <ul style="list-style-type: none"> - Show EWN Toolkit Video - Share Materials and Tutorials <i>10 minutes for questions</i>	Margaret Owensby, & Amanda Tritinger <i>USACE/ERDC</i>
1630- 1650	Natural and Nature-Based Feature (NNBF) Guidelines and Other EWN Strategic Communications Large scale, international effort to provide a guide on the conceptualization, planning, design, engineering, construction, and maintenance of NI - Where to find it and how to use it <i>5 minutes for questions</i>	Burton Suedel, & Amanda Tritinger <i>USACE/ERDC</i>
1650 - 1700	Closing remarks Where to find out more, and how to get involved. Exit test. Final Discussion, and Adjourn	Amanda Tritinger <i>USACE/ERDC</i>

Thanks for attending!

Quiz at: <https://forms.gle/NvpBXh7siG6Q8g7n6>

More at www.engineeringwithnature.org