

# North Carolina Erosion and Sediment Control Design – Webinar Series –

Tuesdays

October 6 – December 15, 2020

1pm – 2pm

Presented by:

NC Department of Environmental Quality – Land Quality Section

In partnership with:

NCSU Department of Crop & Soil Sciences

SE Chapter of the IECA

## Webinar Schedule, Presentation, and Presenter Information

<p><b>Oct 6, 2020</b> 1pm-2pm (EST)</p>	<p><b>Updates from DEMLR</b> Julie Coco, PE, CPESC, DEMLR Annette Lucas, PE, DEMLR</p> <p><i>Presentation Information:</i></p> <p>Part 1: Administrative Code Changes affecting the State Sedimentation Pollution Control Program in 2020</p> <p>This presentation will highlight changes made to Chapter 04 of Title 15A of the North Carolina Administrative Code that went into effect June 1, 2020. The presentation covers adaptations made by the Sedimentation Pollution Control Program within DEQ's Division of Energy, Mineral and Land Resources in response to those changes, and how they affect your erosion and sediment control plan designs and self-inspections.</p> <p>Part 2: 2020 Stormwater Program Updates</p> <p>This talk will highlight the most recent achievements of the DEMLR Stormwater Program, including improvements to the Stormwater Design Manual, updates in the NPDES Industrial</p>
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	<p>Stormwater Permitting Program, outreach in the Water Supply Watershed Program, and the Stormwater Education Program.</p> <p><i>Presenters Biographies:</i></p> <p>Julie is the State Sedimentation Program Engineer for the North Carolina Department of Environmental Quality's Division of Energy, Mineral, and Land Resources. Her experience includes work in private practice and previous work in state government involving flood control, stormwater, erosion control, and permitting.</p> <p>Annette Lucas is the Supervisor of the DEMLR Stormwater Program who has worked in various aspects of stormwater design, permitting and education for 25 years. She has a bachelor's degree from Duke University in Public Policy Studies and a master's degree from NC State University in Civil Engineering. In 2019, she was named the H. R. Malcom Stormwater Professional of the Year.</p>
<p><b>Oct 13, 2020</b> 1pm-2pm (EST)</p>	<p><b>Sediment Basin Design in the Post-Construction Era</b> Jay Wilson, CPESC, Water Quality Administrator City of Charlotte</p> <p><i>Presentation Information:</i></p> <p>Observations, tips, and insights from a regulator for designing temporary sediment basins that occupy the footprint of the permanent, post-construction stormwater control measure (SCM). Learn about some of the challenges your design may present to site work contractors, and what you may consider to improve the 'buildability' of your clients' projects.</p> <p><i>Presenter Biography:</i></p> <p>Jay serves the City of Charlotte as a Water Quality Administrator, overseeing the City's delegated Erosion Control Authority and a team of reviewers and inspectors. He is a Certified Professional in Erosion and Sediment Control and has over fifteen years of full-time regulatory experience with construction site storm water management.</p>
<p><b>Oct 20, 2020</b> 1pm-2pm (EST)</p>	<p><b>Transitioning E&amp;SC Between Phases</b> Karyn Pageau, EI, CPESC, Environmental Consultant Wake County</p> <p><i>Presentation Information:</i></p> <p>Mass grading plans seldom show all the measures needed to control erosion and force sedimentation that occur onsite. Yet, the regulator/inspector expects containment and the plan to be implemented no matter what the temporary grade is between</p>

	<p>phases. That is where the true erosion control story begins and where we rely on the grading contractor to read between the lines shown on the plan and on the ground. We will discuss some of the intermediate erosion control measures that could and should be used as erosion and sediment control implements to be stored in the contractor, engineer, and regulator toolbelts.</p> <p><i>Presenter Biography:</i></p> <p>Karyn began her 25 year career in erosion control and conservation, with the federal government on the farm. She then worked for NC state government for approximately 11 years and has transitioned to local government the last 5 years. She has appreciated being a plan reviewer, inspector, and Assistant State Sediment Specialist to name a few of her roles and enjoys all things Erosion Control.</p>
<p><b>Oct 27, 2020</b> 1pm-2pm (EST)</p>	<p><b>Effects of Turbidity and Sediment on Aquatic Organisms</b> Sean Buczek, Environmental Specialist NCDEQ-DWR</p> <p><i>Presentation Information:</i></p> <p>Understanding the toxicological and physiological responses to prolonged exposure of suspended sediment. An overview of the effects of turbidity and suspended sediment generated from anthropogenic activity and how they can adversely affect water quality and aquatic life.</p> <p><i>Presenter Biography:</i></p> <p>In his role as an Environmental Specialist for the Intensive Surveys Branch of the Water Sciences Section, Sean’s primary focus is the collection and monitoring of surface water, sediment, and biota samples as they pertain to water quality studies. Sean received his M.S. from North Carolina State University, where he studied the effects of suspended sediment on freshwater mussels.</p>
<p><b>Nov 3, 2020</b> 1pm-2pm (EST)</p>	<p><b>Innovation Construction Stormwater Management in a Transportation Environment</b> Barry Fagan, PE/PLS, ENV SP, CPMSM, CPESC, CESSWI, Vice President Green Infrastructure - Volkert, Inc.</p> <p><i>Presentation Information:</i></p> <p>A case study will be highlighted where a state transportation agency, through intentional and innovative methods of internal and external communication and management of the contractor's work, was able to protect water quality and make long-lasting change on an environmentally and politically sensitive highway project. Costs</p>

	<p>were reduced, safety was enhanced, quality was improved, production was increased (by over 35%), and sediment yield was reduced (by over 99%).</p> <p><i>Presenter Biography:</i></p> <p>Barry Fagan leads a green infrastructure service area for Volkert. He has made a career of finding innovative ways to effectively manage construction and post construction runoff. He loves dirt, loves water, and enjoys the challenge of keeping the two separated.</p>
<p><b>Nov 10, 2020</b> 1pm-2pm (EST)</p>	<p><b>Utilizing Biotic Soil for Landfill Closure</b> Kenton Yang, PE, Project Manager SCS Engineers</p> <p><i>Presentation Information:</i></p> <p>Typical landfill closures use soil berms and swales to manage stormwater. This presentation will discuss a landfill closure that was bermless and relied on rock trenches for stormwater management. A biotic soil was necessary to control construction costs, protect infrastructure and provide a long lasting vegetative cover.</p> <p><i>Presenter Biography:</i></p> <p>Kenton Yang has been an environmental consultant for 20 years in North Carolina. Kenton has provide solid waste management throughout North Carolina for 17 years.</p>
<p><b>Nov 17, 2020</b> 1pm-2pm (EST)</p>	<p><b>NCDOT Observations and Translating BMPs from Plans to the Ground</b> Josh Young, Engineer NCDOT</p> <p><i>Presentation Information:</i></p> <p>It can be extremely difficult and challenging from time to time getting EC plans implemented on the ground with the designer's intent in mind. However, with correct and knowledgeable boots on the ground those mere shapes and symbols found on EC plan sheets can be interpreted and implemented correctly in the field. This presentation will focus on the perspective from DOT on how to get BMP's from designer plans to the ground while assuring they are installed as correctly and efficiently as possible.</p> <p><i>Presenter Biography:</i></p> <p>Joshua Young is a graduate of NC State University with a BS in Horticulture and an Associates of Science in Landscape Architecture Technology from Wake Technical Community</p>

	<p>College. Josh has been employed with NCDOT for the past 13 years and is currently working as an EC Field Operations Engineer with the Roadside Environmental Unit out of Raleigh, NC.</p>
<p><b>Dec 1, 2020</b> 1pm-2pm (EST)</p>	<p><b>Updates on the North Carolina Geological Survey's Landslide Mapping and Landslide Response Program: Lidar, Drones, and Boots on the Ground</b> Rick Wooten, PG, Senior Geologist for Geohazards and Engineering Geology, N.C. Geological Survey, NCDEQ-DEMLR</p> <p><i>Presentation Information:</i></p> <p>The presentation will highlight the applications of QL1 lidar digital elevation models, and Unmanned Aerial System (UAS) technology in responding to recent landslide events, and to landslide hazard mapping in Polk and Rutherford Counties. Relationships between bedrock structures, landforms prone to landslides, and the August 9, 2020 Sparta earthquake and the newly discovered Little River fault will also be covered. The presentation will include an introduction to the web map viewer where the NCGS's landslide data and maps can be accessed.</p> <p><i>Presenter Biography:</i></p> <p>Rick has a B.S. and M.S. in geology from the University of Georgia. From 1980-1990 he worked in applied engineering geology on the Gifford Pinchot National Forest in the Cascade Mountains of Washington state. Since 1990 Rick has been a Senior Geologist with the N.C. Geological Survey where he has done geologic mapping in the Piedmont and Blue Ridge, and landslide responses, research and hazard mapping in the Blue Ridge.</p>
<p><b>Dec 8, 2020</b> 1pm-2pm (EST)</p>	<p><b>Caswell Beach Dune Infiltration System</b> Marc Horstman, PE, WK Dickson</p> <p><i>Presentation Information:</i></p> <p>This presentation will discuss how a new type of Stormwater Control Measure, a Dune Infiltration System, will be utilized to resolve flooding along Caswell Beach Road, which is the only ingress and egress within the Town of Caswell Beach. This presentation will explore the design approach, constraints, costs and overall benefits of this proposed system to this coastal community.</p> <p><i>Presenter Biography:</i></p>

	<p>Marc is a project manager in WK Dickson's stormwater group with an emphasis on municipal stormwater infrastructure, including planning and design, hydraulic and hydrologic modeling, innovative and sustainable site design, and stormwater SCM design. Marc has both an undergraduate and Master of Science degree in Biological engineering from North Carolina State University. He is a registered Professional Engineer in North Carolina, Georgia, Tennessee and South Carolina; a certified Professional Hydrologist; and a Certified Floodplain Manager.</p>
<p><b>Dec 15, 2020</b> 1pm-2pm (EST)</p>	<p><b>Research Results to Keep You Out of Trouble</b> Rich McLaughlin, PhD, NC State University</p> <p><i>Presentation Information:</i></p> <p>This presentation will be a fast-paced summary of the results of 20 years of research on improving construction site erosion, sediment, and turbidity control practices to improve the quality of stormwater discharges. Some you may have heard about, some have become standard practice, and some SHOULD become standard practice (according to McLaughlin). A little bit of time and money can go a long way to reducing the impacts of construction on surface waters.</p> <p><i>Presenter Biography:</i></p> <p>Rich McLaughlin is a Professor focusing on managing stormwater on construction sites to reduce the impacts on water quality.</p>