Agenda

Current State of Stormwater Infrastructure

T. Stottlemever

in the United States

- ASCE report card Condition and capacity Operation and maintenance Resilience and public safety
- Funding, future need, and innovation

Stormwater Quality Control in a Compact Structural Footprint T.J. Mullen

Stormwater structure design with a focus on water quality improvement Exploring simple devices including the SNOUT, Bio-Skirt and the Turbo Plate that transforms inlets and junctions into water quality structures that improve the pollution removal performance of the drainage network Review guidance on potential water quality credits for enhanced sump structures Performance modeling software and online resources discussion Maintenance Issues

Advancing Stormwater Management at

Great Lakes Marinas with Green Infrastructure Coastal storm vulnerability Watershed management

- Stormwater runoff
- Green infrastructure

2023 Green Cincinnati Plan: Resilience and Climate Adaptation H. Miller The Intersection of Community, Science, and Government

Green infrastructure Green space

- Adaptive land use
- Goals, strategies, and priority actions

Increasing Climate Resiliency

US Forest Service's tree atlas Creating landscapes that improve climate resiliency Green infrastructure stormwater controls Examples of green infrastructure solutions Climate change impacting tree planting decisions

Examples of Multi-Functional Stormwater Management K. Halloran

- Background New approaches Sports field/public park Nature/wildlife preserve.
- Redevelopment of existing stormwater facilities Summary of benefits

Stormwater Management and Automated Systems

From grey to green to smart Automated outlet-control structures Maximizing efficiency of detention ponds

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HalfMoon Education Inc. PO Box 278 Altoona, WI 54720-0278

You'll be able to:

Discuss the condition and capability of stormwater infrastructure in the U.S.

Examine the 2023 Green Cincinnati Plan for resilience and climate adaptation.

Evaluate options for using green infrastructure to manage stormwater at Great Lakes Marinas.

Improve stormwater quality by using devices that improve pollution removal performance.

Increase climate resiliency with trees.

Reap multiple benefits from the use of multi-functional stormwater infrastructure.



Current Issues in Ohio Stormwater Management



Explore the 2023 Green Cincinnati Plan for resilience and climate adaptation

Discuss green stormwater management at Great Lakes marinas

Explore devices that improve stormwater quality at inlets

Continuing Education Credits

Professional Engineers 7.0 PDHs

Architects 7.0 HSW CE Hours 7.0 AIA LU|HSW





D. Marchese

D. Gamstetter

S. Hardv

HalfMoon Education Live Webinars

Live, Interactive Webinar - Friday, December 15, 2023

Consider the use of trees to manage stormwater and increase resiliency

Get ideas for multi-functional stormwater management

Evaluate automated stormwater outlet-control structures

Landscape Architects 7.0 HSW CE Hours 7.0 LA CES PDHs



International Code Council .7 CEUs (Sitework)

Floodplain Managers 7.0 ASFPM CECs



Webinar Information

Log into Webinar 8:30 - 9:00 am EST

Break 12:15 - 12:45 pm EST

Morning Session 9:00 am - 12:15 pm EST

Afternoon Session 12:45 - 5:00 pm EST

Tuition

\$319 for individual registration.

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Credit Information

This webinar is open to the public and is designed to qualify for 7.0 PDHs for professional engineers, 7.0 HSW continuing education hours for licensed architects, and 7.0 HSW continuing education hours for landscape architects in Ohio. Professionals seeking continuing education credits in other states may be able to claim the hours earned from this event; please refer to specific state rules to determine eligibility.

The American Institute of Architects Continuing Education System has approved this course for 7.0 HSW LUs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 7.0 HSW PDHs. Only full participation is reportable to the LA CES.

The International Code Council has approved this event for .7 CEUs in the specialty area of Sitework (Preferred Provider No. 1232).

This Association of State Floodplain Managers has approved this course for 7.0 CECs for floodplain managers.

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7.0 HSW LUs (AIA), 7.0 HSW PDHs (LA CES), 7.0 ASFPM CECs

Facultv

Timothy Stottlemyer has over two decades of stormwater industry experience. Mr. Stottlemyer was vice president of an excavating business focusing on stormwater and wet utility construction and maintenance for commercial, industrial, retail and institutional clients. He later worked in the central Indiana area as an MS4 coordinator enforcing stormwater management plans as required by the EPA. With unique understanding of regulatory expectations, Mr. Stottlemyer offers a wealth of knowledge around stormwater infrastructure from installation and maintenance to repairs. As a stormwater infrastructure consultant, Mr. Stottlemyer is well versed in complex rehabilitations and navigating regulatory nuances for the betterment of both the environment and the client.

T.J. Mullen is a frequent speaker and trainer on stormwater quality topics for engineering and environmental organizations including the ASCE and APWA. Mr. Mullen is the president and founder of Best Management Products, Inc., and coinventor of the SNOUT stormwater quality system and holds several U.S. and Canadian patents. Mr. Mullen has a 25+ year background in stormwater and wastewater design and product development. He holds a B.S. degree in Industrial and Management Systems Engineering from Penn State University.

Dr. Scott Hardy is an extension educator with Ohio Sea Grant and The Ohio State University based in Cleveland. He conducts applied research and develops education and outreach programs on collaborative watershed management, marine debris prevention, community-based response to ecological change, and other issues facing Lake Erie and the Great Lakes region. The results of his work help to inform decisionmaking among practitioners and policymakers, as well as educate local and regional stakeholders about issues impacting Lake Erie, its tributaries, and the surrounding watershed. Prior to joining Ohio Sea Grant in 2015, Dr. Hardy gained experience in a variety of different roles related to environmental management and community development. He completed a bachelor of science degree in Environmental Geography from Ohio University, a Master of Professional Studies in Natural Resources from Cornell University, and a PhD in Environment and Natural Resources from The Ohio State University. He also served as a U.S. Peace Corps volunteer in Honduras, and later joined the faculty at McDaniel College in Westminster, Maryland, where he was chair of the Environmental Studies Department. Most recently, Dr. Hardy spent two years as assistant dean of Undergraduate Studies at Case Western Reserve University, before returning to his research and educational interests with Ohio Sea Grant. When not working he enjoys hiking, fishing, and exploring the great outdoors with family and friends. He lives in northeast Ohio with his wife and daughter, not far from the Lake Erie coast.

Howard Miller is an environmental manager at the City of Cincinnati, Office of Environment & Sustainability with over 27 years of private and public environmental sustainability experience. In his current role, he leads an environmental team whose programming focus is on the natural environment, resilience and climate adaptation, and zero waste. Stormwater and heat adaptation is a primary goal of this work with the intent of reducing extreme heat, overland flooding, landslides, and water pollution vulnerabilities by incentivizing, improving and increasing green infrastructure, green space, and adaptive land use. Mr. Miller uses that experience to help align community priorities with city planning to create beneficial outcomes.

David Gamstetter is a business developer with the Davey Resource Group. He has over 35 years of experience in municipal park and tree management, approximately 10 years of experience installing and maintaining green infrastructure stormwater control measures, is an International Society of Arboriculture Certified Arborist, and holds a National Green Infrastructure Certification (NGICP).

Kent Halloran has worked for over 30 years in the field of storm water, potable water, wastewater engineering design and construction. He has also worked as a design and construction engineer in the areas of municipal, industrial, and airport drainage among other areas. He serves as The Ohio State University's water compliance engineer and has served as an adjunct faculty professor in the Civil, Environmental, and Geodetic Engineering Department (https://ceg.osu.edu/). He is also the faculty advisor for two student organizations. In the past, He served as the town engineer for several communities and has promoted the concepts of sustainability throughout his career. Throughout his career he has encouraged the use of natural systems, such as constructed wetlands, and the conversion of retention basins using native wetland plants to improve storm water retention, increase pollutant removal, and provide pollinator and wetland habitat. He earned a bachelor of science degree in Civil Engineering from The Ohio State University and a masters of engineering in Environmental Systems Engineering from Clemson University. He is a licensed professional engineer in the States of Ohio and Idaho.

Dayton Marchese is a professional engineer and partner manager with Opti, where he helps municipalities and utilities leverage technology to improve stormwater management and support smart city initiatives. Mr. Marchese attended the University of California at Berkeley, where he earned an M.S. degree in Environmental Engineering and a B.S. degree in Environmental Science, and he has authored multiple scientific publications on technology-enhanced infrastructure.

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