

Agenda

Urban and Suburban Stormwater Management System Objectives and Design Considerations

J. Brunoehler

Regulations addressing stormwater quality and management

- Clean Water Act
- Federal, state and local requirements

Site assessment

Preparing stormwater pollution prevention plans

- Stormwater goals
- Design considerations

Regulation between City and State Requirements per the EPA Clean Water Act

J. Brunoehler

Wisconsin Adm. Code NR 151 for stormwater quality and quantity standards

Updated Dane County Inlet protection requirements for construction

DNR post-construction standards and Standards Oversight Council process to draft and implement standards

Choosing Storage System Types

J. Brunoehler

Detention basins

- Stormwater routing, sediment handling, outlet

Retention ponds

- Stormwater routing, sediment handling, soils and vegetation

Infiltration basins

- Stormwater routing, sediment and chemical handlings, soils and vegetation

Choosing an Underground Storage System

J. Brunoehler

Retention systems

- Stormwater routing, sizing, design criteria

Detention/infiltration systems

- Stormwater routing, infiltration, sizing, design criteria

Sustainable Best Practices in Stormwater Detention/Retention and Conveyance/Detention

A. Cizek

Naturalizing detention/retention basins

Small detention areas vs. large detention area

Rain gardens

Water reuse options

Recharging groundwater table

Retrofitting existing systems and basins

Stormwater Basins and Underground Systems

Madison, WI - Tuesday, May 12, 2020



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Learning Objectives

You'll be able to:

Comply with federal Clean Water Act and Wisconsin Admin. Code NR 151 requirements for stormwater quality and quantity.

Describe urban and suburban stormwater management system objectives and design considerations.

Choose between stormwater storage system types: detention basins, retention ponds and infiltration basins.

Consider underground storage systems.

Adopt sustainable best practices in stormwater detention/retention and conveyance, including rain gardens and water reuse.



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Stormwater Basins and Underground Systems

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Understand urban and suburban stormwater management system objectives and design considerations

Examine regulations under the EPA Clean Water Act and WI Admin. Code NR151

Identify stormwater storage system types: detention basins, retention ponds and infiltration basins

Learn how to choose an underground storage system

Explore sustainable best practices in stormwater detention and retention

Continuing Education Credits

Architects & Landscape Architects

6.5 HSW Continuing Ed. Hours
6.5 AIA LU|HSW
LA/CES Pending

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CM | 6.5

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Faculty

Jake Brunoehler, PE *Regional Engineer for ADS*
Mr. Brunoehler is a licensed professional engineer in Wisconsin, and he received his B.S. degree in Civil Engineering from Valparaiso University. He previously worked as a project engineer for Patrick Engineering in southeast Wisconsin. As a project engineer, Mr. Brunoehler had the opportunity to work along the entire I-94 North/South corridor through Racine and Kenosha Counties as a consultant to the Wisconsin Department of Transportation. Prior to his move to Wisconsin in 2009, he worked as an engineering technician for a private firm in Michigan and as a project manager for the Norfolk Southern Railway. Currently, Mr. Brunoehler is the Wisconsin regional engineer for ADS as the technical specialist in stormwater modeling, manufacturing, specifications, structural design, best construction and inspection practices, and more. In his spare time, he enjoys home-brewing, woodworking, and travels with his wife as members of a traditional Irish band.

Adrienne Cizek, PhD, PE *Senior Project Engineer, Stormwater Solutions Engineering, LLC*
Ms. Cizek earned her PhD degree studying ecological-based stormwater systems, focusing on regenerative stormwater conveyance (RSC) at North Carolina State University. Her professional history involves designing innovative and integrated approaches to wastewater, graywater, stormwater, and rainwater collection, treatment, and reuse. Her experience includes managing the installation of systems, as well as permitting and outreach through workshops and training. Ms. Cizek’s role at Stormwater Solutions Engineering includes a variety of projects, including green infrastructure design and community engagement as well as floodplain modeling, stormwater management plans, permitting, grant applications, and culvert design. She also serves as a team member developing WDNR technical guidance with the Standards Oversight Council and teaches a course on Ecosystem Services in Stormwater BMPs through the UW-Milwaukee School of Continuing Education.

Seminar Information

Doubletree by Hilton Madison
525 West Johnson Street
Madison, WI 53703
(608) 251-5511

Tuition
\$299 for individual registration
\$279 for three or more registrations.
Included with your registration: Complimentary continental breakfast and printed seminar manual.
Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
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Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:15 pm
Lunch (on your own)
12:15 - 1:15 pm
Afternoon Session
1:15 - 4:30 pm

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects and landscape architects in most states, including Wisconsin. Educators and courses are not subject to preapproval in Wisconsin.

This seminar is approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Sponsor No. J885). Course approval is applied for and pending from the Landscape Architecture Continuing Education System. Visit www.halfmoonseminars.org for complete AIA/CES course information and LA CES PDH status under this seminar listing. Only full attendance is reportable to the AIA/CES and LA/CES.

This course is approved by the American Planning Association – AICP for 6.5 Certification Maintenance credits for Certified Planners. Full attendance is required.

Attendance will be monitored and attendance certificates will be available after the seminar for most individuals who complete the entire program. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series
Compliance with the 2018 International Building Code

- Compliance with the 2018 International Building Code, Part I**
Wed., April 8, 2020, 11:00 AM - 1:00 PM CDT
- Compliance with the 2018 International Building Code, Part II**
Wed., April 8, 2020, 1:30 - 3:30 PM CDT
- Compliance with the 2018 International Building Code, Part III**
Thurs., April 9, 2020, 11:00 AM - 12:30 PM CDT

Tree Science

- Biology and Benefits of Trees**
Wed., April 15, 2020, 11:00 AM - 1:00 PM CDT
- Tree Infrastructure: Design Elements That Appreciate**
Wed., April 15, 2020, 1:30 - 3:00 PM CDT
- Trees and Site Requirements**
Thurs., April 16, 2020, 11:00 AM - 12:00 PM CDT
- Project Completion and Tree Threat Prevention**
Thurs., April 16, 2020, 12:30 - 2:30 PM CDT

Structural Forensic Engineering

- Overview of the Role of Forensic Engineering**
Thurs., April 16, 2020, 11:00 - 12:30 PM CDT
- Forensic Engineering Process and Forensic Engineering Report**
Thurs., April 16, 2020, 1:00 - 3:00 PM CDT
- Causes of Structural Failures**
Fri., April 17, 2020, 11:00 - 12:30 PM CDT
- Forensic Examination of Structures and Use in Litigation**
Fri., April 17, 2020, 1:00 - 3:00 PM CDT

For more information and other online learning opportunities visit:
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Registration

Stormwater Basins and Underground Systems

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How to Register

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