Agenda

Presented by Rocky J. Keehn PE, D.WRE, CFM

Exploring Urban Hydrology and Environment

History of urban hydrology, why it is unique and significant today.

Watershed level design – the big picture

Small project design - micro-level

Role of green infrastructure in urban hydrology

A 5, 10, 25, 50, 100 year rule – establishment of project goals

Reviewing Regulations and Doing Stormwater Design

Local, state, and federal regulations

- Water quality
- Storm events
- Resiliency and climate
- Risk based design

Commonsense approach – does it work? Introduction to stormwater modeling

Understanding Hydrology and Hydraulics (H&H)

Hydrology 101

Hydraulics 101

Bring in the "green" design

Tying it all together

Designing a Convevance System The Old Fashion Way...No Fancy Computer Models

Reviewing drainage patterns

Creating a system layout

• Channels, streets, inlets, pipes, ponds and BMP's

Utilities conflicts

Construction concerns

Computer models

City-Scale Strategic Stormwater Planning

What's the problem?

Flood mitigation watershed modeling...2D world

- Benefit/cost good way to look at it?
- Solutions

Climate change, risk, and resiliency

Design Case Study

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2023 2, November

Management

Stormwater

Urban

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System DesignLive, Interactive Webinar -

System

Thursday,

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



Learning Objectives

You'll be able to:

Discuss the principles of urban hydrology.

Review applicable local, state and federal regulations for stormwater modeling.

Explore technical considerations for green stormwater infrastructure implementation.

Learn how to create a system layout for a storm sewer system.

Take a closer look a how climate change can impact stormwater planning.



HalfMoon Education Live Webinars

Urban Stormwater Management System Design and Construction

Live, Interactive Webinar - Thursday, November 2, 2023



Think about stormwater management at both the macro and micro levels

Review stormwater regulations

Get an overview of stormwater hydrology and hydraulics

Explore urban stormwater system design and system components

Discuss city-scale strategic stormwater planning

Continuing Education Credits

Professional Engineers 6.5 PDHs

Architects

6.5 HSW CE Hours 6.5 AIA LU|HSW

Landscape Architects 6.5 HSW CE Hours 6.5 LA CES HSW PDHs

Floodplain Managers 6.5 ASFPM CECs

Certified Planners CM | 6.5







Webinar Information

Log into Webinar 8:00 - 8:30 am CDT

Break

11:45 am - 12:45 pm CDT

Morning Session

Afternoon Session

8:30 - 11:45 am CDT 12:45 - 4:30 pm CDT

Tuition

\$319 for individual registration.

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Included with your registration: PDF seminar manual.

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Cancellations: Cancel at least 48 hours before the start of the webinar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another webinar or the self-study package. You may also authorize another person to take your place.

Faculty

Rocky J. Keehn PE, D.WRE, CFM

Mr. Keehn has over 35 years of experience in the field of stormwater planning and design. Projects have included storm sewer design; detention ponding for rate control; retention ponds for water quality improvements; wetland construction; underground and above ground BMPs including rain gardens, first flush diversion structures, and special outlet structures; and retrofit of existing sites for stormwater improvements. He holds the certification of diplomate water resource engineer (D.WRE) from the American Academy of Water Resource Engineers, and is a registered engineer in the states of South Dakota, Nebraska, Minnesota, and Wisconsin. Mr. Keehn is a registered hydrologist in Wisconsin, a certified floodplain manager (CFM), and a Nebraska Department of Transportation (NDOT) erosion and sediment control certified inspector.

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Credit Information

This webinar is open to the public and is designed to qualify for 6.5 PDHs for professional engineers, 6.5 HSW continuing education hours for licensed architects, and 6.5 HSW continuing education hours for landscape architects in all states that allow this learning method. Please refer to specific state rules to determine eligibility.

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The American Institute of Architects Continuing Education System has approved this course for 6.5 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 6.5 HSW PDHs. Only full participation is reportable to the LA CES.

This Association of State Floodplain Managers has approved this course for 6.5 CECs for floodplain managers.

HalfMoon Education is an approved CM Provider with the American Planning Association. This course is registered for CM | 6.5 for Certified Planners.

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the guiz that follows the course (multiple attempts allowed).

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The preceding credit information only applies to the live presentation. This course in an on-demand format may not be eligible for the same credits as the live presentation; please consult your licensing board(s) to ensure that a structured, asynchronous learning format is appropriate. The following pre-approvals may be available for the on-demand format upon request:

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Additional Learning

Stormwater Best Management Practices

- Monday, October 16, 2023 | 8:30 am - 4:30 pm CDT

HEC-RAS Modeling Basics

- Tuesday, October 17, 2023 | 8:30 am - 5:00 pm CDT

Construction Scheduling and Cost Control

- Tuesday, October 17, 2023 | 9:30 am 2:00 pm CDT
- Wednesday, October 18, 2023 | 9:30 am 2:00 pm CDT

Sustainable Asphalt Pavement

- Tuesday, October 17, 2023 | 1:00 - 3:00 pm CDT

Internal Design of MSE Walls and Geosynthetics

- Thursday, October 19, 2023 | 10:00 am - 1:15 pm CDT

Engineering Projects from Start to Finish

- Friday, October 20, 2023 | 8:30 am - 4:30 pm CDT

Mass Timber Frame Design and Construction Under IBC 2021

- Friday, October 20, 2023 | 8:30 am - 4:30 pm CDT

Highway Bridge Design, Evaluation, Inspection and Rehabilitation

- Monday, October 23, 2023 | 8:00 11:40 am CDT
- Tuesday, October 24, 2023 | 1:00 4:40 pm CDT

Floodplain Mapping, Insurance, and Regulation

- Tuesday, October 24, 2023 | 11:00 am 2:15 pm CDT
- Wednesday, October 25, 2023 | 11:00 am 2:15 pm CDT

Introduction to HMR52 Probable Maximum Storm Software

- Wednesday, October 25, 2023 | 9:00 am - 4:00 pm CDT

Advanced HEC-RAS Modeling

- Thursday, October 26, 2023 | 8:30 am - 4:20 pm CDT

Introduction to Groundwater Modeling

- Thursday, October 26, 2023 | 9:00 am 12:20 pm CDT
- Friday, October 27, 2023 | 9:00 am 12:20 pm CDT

Whole Building Commissioning to Achieve Performance Goals

- Friday, October 27, 2023 | 8:30 am - 4:00 pm CDT

Understanding NSPE Engineering Code of Ethics

- Friday, October 27, 2023 | 11:00 am - 12:00 pm CDT

Using US EPA's Storm Water Management Model (SWMM)

- Tuesday, October 31, 2023 | 8:30 am - 4:00 pm CDT

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