

# Agenda

Presented by Robert E. Dickinson

## Understanding Open Channel Flow and Pipe Flow

- Fundamentals of pipe flow
- Basics of open channel hydraulics
- Examining types of open channel flows
- Looking at examples of open channels

## Making Open Channel Calculations

- Channel shapes and varying flow
- Manning's equation and open channels
- Uniform flow calculations
- Critical flow calculations
- Varied flow analysis

## Evaluating Channel Shapes

- Evaluating the effect of channel shapes: Trapezoidal
- Evaluating parabolic channel shapes
- Comparing different channel shapes

## Evaluating Channel Linings

- Smooth surface linings
- Uneven or rough surface linings
- Vegetated surfaces for channel linings
- Comparative analysis of different linings
- Future trends in channel lining technology

## Designing Open Channels

- Design considerations for low slope channels
- Steep slope channel design
- Designing channel transitions
- Integrating structural and non-structural measures
- Advanced modeling and simulation techniques

## Applications for Open Channels and Case Studies

- Stormwater management applications
- Drainage systems and open channels
- Managing stream flow with open channels
- Case studies in open channel applications

### Can't Attend? Order the Webinar as an On-Demand Package!

Recordings of this webinar are available for purchase. See course listing online for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Open Channels: Hydraulics, Design and Construction

Live, Interactive Webinar - Monday, March 25, 2024

NON-PROFIT  
U.S. POSTAGE PAID  
EAU CLAIRE, WI  
PERMIT NO. 2016

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



## Learning Objectives

### You'll be able to:

**Apply** the physics of pipe flow and open channel flow to stormwater, drainage and stream flow applications.

**Get tips on** making uniform and varied flow calculations.

**Take** into account the effect of different channel shapes and linings.

**Explore** the effect of vegetated surfaces in channels.

**Design** open channels for low and steep slopes.

**Discuss** considerations for making transitions between different types of open channels.



## HalfMoon Education Live Webinars

# Open Channels: Hydraulics, Design and Construction

Live, Interactive Webinar - Monday, March 25, 2024



**Examine** types of open channel flows

**Learn** about uniform flow calculations and critical flow calculations

**Evaluate** channel shapes, including the parabolic channel shape

**Explore** future trends in channel lining technology

**Discuss** design considerations for low slope channels and steep slope channel design

**Analyze** applications for open channels and review case studies

## Continuing Education Credits

**Professional Engineers**  
6.5 PDHs

**Landscape Architects**  
6.5 HSW CE Hours  
6.5 LA CES HSW PDHs

**Floodplain Managers**  
6.5 ASFPM CECS



# Webinar Information

## Log into Webinar

8:30 - 9:00 am CDT

## Break

12:30 - 1:00 pm CDT

## Morning Session

9:00 am - 12:30 pm CDT

## Afternoon Session

1:00 - 4:30 pm CDT

## Tuition

**\$319** for individual registration.

**\$289** for two or more registrants from the same company at the same time.

**Included with your registration:** PDF seminar manual.

## How to Register

- Visit us online at [www.halfmoonseminars.org](http://www.halfmoonseminars.org)
- Call customer service at 715-835-5900

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit [www.gotowebinar.com](http://www.gotowebinar.com).

**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 on-demand package. You may also authorize another person to take your place.

Learn More and Register:

[www.halfmoonseminars.org](http://www.halfmoonseminars.org)

Customer Service (715) 835-5900 Ext. 1

or scan here



### Can't Attend? Order the Webinar as an On-Demand Package!

Recordings of this webinar are available for purchase. See details online for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Faculty

## Robert E. Dickinson

*Product Sector Leader for InfoSWMM/InfoSewer at Innovyze an Autodesk Company*

Mr. Dickinson is one of the world's leading experts in wastewater and urban drainage modeling. He has fifty years of experience in software development and management of wastewater and stormwater planning and design projects. A principal developer of the industry-standard and FEMA-certified SWMM5 software, he has a distinguished background in computational hydraulics and high-level simulation programming. Mr. Dickinson has a unique combination of proven project engineering expertise, management skills and high-level technical capabilities is coveted in the stormwater industry. He has an impressive record of leadership, impeccable reputation, key role in the USEPA Storm Water Management Model (SWMM5) redevelopment program, strong expertise in both numerical methods and hydrology/hydraulics, and in-depth knowledge of the wastewater industry. Mr. Dickinson has worked closely with product development teams and clients, helping communities around the world manage urban runoff and wet weather water quality problems in combined, sanitary and storm sewers and protect the ecological health of our waterways. He holds an M.E. degree in Environmental Engineering from the University of Florida, Gainesville.

# Credit Information

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

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider License No: CEA362), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and landscape architects via its registration with the Landscape Architecture Continuing Education System. Most other states do not preapprove continuing education providers or courses.

The Landscape Architecture Continuing Education System has approved this course for 6.5 HSW PDHs. Only full participation is reportable to the LA CES.

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

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 quiz that follows the course (multiple attempts allowed).

## On-Demand Credits

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.

# Additional Learning

## Slope Stabilization and Landslide Prevention

- Friday, February 23, 2024 | 9:00 am - 4:30 pm CST

## Hot-Mix Asphalt Pavement Design, Maintenance and Rehabilitation

- Tuesday, February 27, 2024 | 8:30 am - 4:00 pm CST

## Learn about Remote Pilot Training and Certification

- Tuesday, February 27, 2024 | 9:00 am - 1:45 pm CST

- Wednesday, February 28, 2024 | 9:00 am - 1:45 pm CST

## Dam Design, Construction, and Maintenance

- Thursday, February 29, 2024 | 9:00 am - 4:30 pm CST

## Pumping and Piping Systems

- Thursday, February 29, 2024 | 11:00 am - 2:15 pm

- Friday, March 1, 2024 | 11:00 am - 2:15 pm CST

## NPDES Stormwater Management Program 2024

- Thursday, March 7, 2024 | 8:30 am - 4:00 pm CST

## Practical Fluid Mechanics

- Friday, March 8, 2024 | 8:30 am - 3:30 pm CST

## Federal and State Nutrient Reduction Strategies and Plans

- Monday, March 11, 2024 | 9:00 am - 4:30 pm CDT

## Water Damage Events:

### Scope, Risks, and Accountability in Remediation

- Monday, March 11, 2024 | 9:00 am - 5:00 pm CDT

## Working with Old Deeds and Descriptions

- Monday, March 11, 2024 | 11:00 am - 3:30 pm CDT

## Deep Dive into Wetland Mitigation Banking

- Tuesday, March 12, 2024 | 9:00 - 11:00 am CDT

## Current Issues in New Urbanism

- Thursday, March 14, 2024 | 9:00 am - 4:00 pm CDT

## Stormwater Best Management Practices

- Friday, March 15, 2024 | 9:00 am - 4:15 pm CDT

## Using RSMeans Data to Create Cost Estimates

- Friday, March 15, 2024 | 9:00 am - 4:30 pm CDT

## Sustainable Site Design

- Wednesday, March 20, 2024 | 8:30 am - 4:00 pm CDT

## Public Water Systems

- Thursday, March 21, 2024 | 9:00 am - 4:30 pm CDT

For more information and other online learning opportunities visit:

[www.halfmoonseminars.org](http://www.halfmoonseminars.org)