# **Agenda**

### Presented by Mary Paist-Goldman, P.E.

### **History and Background of HEC-RAS Software**

Development of HEC-RAS software Applications for HEC-RAS models File management

#### Data Needs to Build a HEC-RAS Model

Data - topography and flow

- Manning's n
- RAS mapper/GIS data

Special elements – bridges, culverts, and lateral/diversion structures

### **Working with the HEC-RAS User Interface**

File management

Data entry and editing

Results displays, mapping, animations and reporting

### **Creating a Steady Flow Simulation - A Case Study**

Locating cross sections

Setting boundary conditions

Reviewing predicted water surface profiles in HEC-RAS

#### **Creating a Special Element Simulation - A Case Study**

Locating a bridge

Entering bridge information

Locating a dam

Entering dam information

#### **Model Troubleshooting and Other Applications**

Reviewing results

Common problems and approaches to troubleshooting

Other applications of HEC-RAS



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Model

-RAS

B

Creating

Interactive

Live,

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



# **Learning Objectives**

### You'll be able to:

**Learn** about different applications for HEC-RAS models.

**Collect** the data necessary to build a model in HEC-RAS.

**Learn** to work with the HEC-RAS interface.

*Create* steady flow simulations.

**Create** special element simulations for bridges and dams.

**Troubleshoot** models and solve common problems.



# HalfMoon Education Inc., Your LIVE Education Leader Presents

# Creating a HEC-RAS Model

Live, Interactive Webinar - Friday, October 11, 2024



**Assemble** data necessary to build a HEC-RAS model

**Work** with the HEC-RAS user interface

**Create** a steady flow simulation

**Create** a special element simulation

**Review** results and solve common problems

### **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

**Geologists**6.5 CE Hours\*

\* This webinar may offer up to 6.5 PDHs to licensed geologists in some states. HalfMoon Education has not applied for state geologist continuing education approval in states requiring such.





# **Webinar Information**

Online - Friday, October 11, 2024

**Log into Webinar** Afternoon Session 8:30 - 9:00 am CDT 12:00 - 2:00 pm CDT

Morning Session Break

9:00 - 11:30 am CDT 2:00 - 2:30 pm CDT

**Break** Afternoon Session 11:30 am - 12:00 pm CDT 2:30 - 4:30 pm CDT

### **Tuition**

\$339 for individual registration.

**\$203** per attendee for group registrations of two or more registering for the same program at the same time. *That's a 40 percent savings!* 

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# **Faculty**



Mary Paist-Goldman, P.E. Rippled Waters Engineering, LLC

Ms. Paist-Goldman has more than 20 years of experience in water resource engineering with a particular focus in stream and wetland restoration and mitigation design. She is the principal and owner of Rippled Waters Engineering, LLC, based in New Jersey. Her firm specializes in water resources engineering services for a variety

of projects. Prior to starting Rippled Waters in 2018, she served for many years as principal engineer and director of Engineering Services of a Mid-Atlantic regional natural resources firm. She is an experienced modeler and has worked extensively on design and analysis using a variety of hydrologic and hydraulic programs including HEC-HMS, HEC-RAS, and HydroCAD. Applications for her hydraulic modeling expertise include wetland restoration and mitigation; stream restoration; bridge repair and replacement; and dam repair, replacement, and removal. Specifically related to riverine systems, Ms. Paist-Goldman has extensive expertise with stream restoration, large woody debris, natural channel design and bioengineering stabilization techniques. Ms. Paist-Goldman has designed restoration projects of all sizes ranging from a few hundred feet to several miles of stream. These projects are planned for use as mitigation banks or serve as mitigation for development onsite. Working closely with restoration ecologists and landscape architects, Ms. Paist-Goldman has designed a variety of stream and wetland habitats including creation, enhancement, restoration, and preservation with a focus on sustainability and regulatory compliance.

# **Additional Learning**

### **Complying With the International Existing Building Code**

- Thursday, September 12, 2024 | 9:00 am - 5:00 pm CDT

### **Dark-Sky Lighting and Ordinances**

- Thursday, September 12, 2024 | 1:00 - 3:00 pm CDT

### **Complying With the International Existing Building Code**

- Thursday, September 12, 2024 | 9:00 am - 5:00 pm CDT

### **Designing and Constructing for Carbon Neutrality**

- Friday, September 13, 2024 | 9:00 am - 4:00 pm CDT

### **Project Management for Engineers**

- Friday, September 13, 2024 | 9:00 am - 5:30 pm CDT

### **GNSS Workshop: Understanding Common Problems**

- Monday, September 16, 2024 | 9:00 am - 12:00 pm CDT

### **Retaining Wall Tieback Design**

- Wednesday, September 18, 2024 | 11:00 am - 1:50 pm CDT

# **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 most 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. 24GP00049300) 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 (LA/CES). 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.

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

This webinar may offer up to 6.5 PDHs to licensed geologists in some states. HalfMoon Education has not applied for state geologist continuing education approval in states requiring such.

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 is not pre-approved by any licensing boards and may not qualify for the same credits; 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: 6.5 HSW PDHs (LA CES)

### **Mature Tree Management**

- Thursday, September 19, 2024 | 1:00 - 3:00 pm CDT

### Reinforced Concrete Building Design and Construction

- Thursday, September 19, 2024 | 8:30 am - 4:30 pm CDT

### **Using RSMeans Data to Create Cost Estimates**

- Thursday, September 19, 2024 | 9:00 am - 4:30 pm CDT

### **Distinguishing Between Construction Defects and Failures**

- Wednesday, September 25, 2024 | 1:00 - 3:00 pm CDT

### **Aerial Mapping for Land Surveyors and Civil Engineers**

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

### **Solar Photovoltaic Covered Parking Facilities**

- Monday, September 30, 2024 | 10:00 am - 12:00 pm CDT

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