# Agenda

### Presented by Curran E. Mohney

### **Slope Movement and Mechanisms**

Types of slope movement and instability Rock fall and rockslides Translational and rotational failures Debris flows and rapidly moving landslides Analyzing the stability of slopes Slope stability concepts Reviewing geologic conditions
Examining soils and topography • Evaluating surface and groundwater conditions A brief discussion of soil and rock mechanics The influence of water Evaluating types of slopes Natural slopes Engineered slopes Methods of slope stability analysis

### **Slope Stabilization Methods**

Use of vegetation (bioengineering)
Surface protection
Unloading
Buttressing
Buttressing for streambank stabilization and environmental considerations
Drainage
Reinforcement
Installing earth retention structures
Rock slope stabilization

Combining methods

### Landslide Hazard and Risk Assessment

Definitions and elements of landslide hazard risk Risk-reduction strategies (objectives for landslide mitigation) Lifecycle cost analysis Applications

### **Case Histories in Landslide Mitigation**

Slope stabilization using retaining walls Slope stabilization using combinations of methods **Rockfall mitigation** Slope stabilization using earthworks Shear keys and buttresses Unloading

Slope stabilization using drainage

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## ~ September and Prevention - Thursday, Stabilization Live, Interactive Webinar Landslide Slope

2023



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### You'll be able to:

**Explore** the factors that impact slope stability

*Evaluate* the stability of natural and engineered slopes

**Review** slope stabilization options, including vegetation, unloading, buttressing and reinforcement.

**Discuss** landslide risk reduction strategies.

Learn from case studies of slope stabilization using different stabilization methods.



# **Slope Stabilization and Landslide Prevention**

Live, Interactive Webinar - Thursday, September 7, 2023



**Discuss** types of slope movement and instability

Analyze the stability of slopes

*Evaluate* slope stabilization methods, including unloading, buttressing and drainage

### **Continuing Education Credits**

Professional Engi 7.5 PDHs

Architects 7.5 HSW CE Hours 7.5 AIA LU|HSW





### HalfMoon Education Live Webinars

**Explore** landslide hazards and risk assessment

*Learn* from case studies of landslide mitigation

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Landscape Architects 7.5 HSW CE Hours 7.5 LA CES HSW PDHs

International Code Council .75 CEUs (Sitework)

Floodplain Managers 7.5 ASFPM CECs

PREFERRED EDUCATION PROVIDER



### Webinar Information

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

Break 12:15 - 12:45 pm CDT

**Morning Session** 8:30 am - 12:15 pm CDT

### Afternoon Session 12:45 - 5:00 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

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### Faculty

### Curran E Mohney Engineering Geologist

Mr. Mohney is the Engineering Geology Program leader for the Oregon Department of Transportation (ODOT). The Engineering Geology Program at ODOT encompasses site characterization, subsurface exploration, slopes and embankments, geologic hazards, groundwater, geotechnical instrumentation, and planning and research activities. In this role, he also oversees the Unstable Slopes (landslide/rockfall) Program for ODOT. He is a registered geologist and a certified engineering geologist in Oregon with over 25 years of experience in Oregon and the western states. Mr. Mohney has been the Engineering Geology Program leader since 2004. Prior to this, he was a staff and project-level geologist for consulting firms and the mining industry as well as for ODOT. He is a graduate of the Geology Program at Portland State University. During his professional career, Mr. Mohney has been involved in the investigation, design, and mitigation of hundreds of landslides and rockfalls.

## **Credit Information**

This webinar is open to the public and is designed to qualify for 7.5 PDHs for professional engineers, 7.5 HSW continuing education hours for licensed architects, and 7.5 HSW continuing education hours for landscape architects in all states that allow this learning method. Please refer to specific state rules to determine eligibility.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), 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 architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 7.5 LU | HSW (Sponsor No. 1885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 7.5 HSW PDHs. Only full participation is reportable to the LA CES.

The International Code Council has approved this event for .75 CEUs in the specialty area of Sitework (Preferred Provider No. 1232).

This webinar has been approved by the Association of State Floodplain Managers for 7.5 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 guiz 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. The following pre-approvals may be available for the on-demand format upon request:

7.5 HSW LUs (AIA) 7.5 HSW PDHs (LA CES) 7.5 ASFPM CECs

or scan here



## **Additional Learning**

**ANSI A300 Compliance: Planting and Transplanting** - Wednesday, August 2, 2023 | 10:00 am - 12:00 pm CDT

**Deep Dive into Pests and Diseases of Trees** - Wednesday, August 2, 2023 | 1:00 - 3:00 pm CDT

### Introduction to Groundwater Hydrology

- Tuesday, August 8, 2023 | 9:00 am - 12:15 pm CDT - Wednesday, August 9, 2023 | 9:00 am - 12:15 pm CDT

How to Design Accessible Parking - Thursday, August 10, 2023 | 10:00 am - 12:00 pm CDT

#### Stormwater Basins and Underground Systems - Friday, August 11, 2023 | 8:30 am - 4:00 pm CDT

**Deep Dive into Water Infiltration in Soil** 

**Basics of HEC-HMS Modeling** 

- Wednesday, August 16, 2023 | 9:00 am - 1:15 pm CDT

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

- Thursday, August 17, 2023 | 10:00 am - 12:00 pm CDT

### **Roadway Drainage Design**

- Monday, August 21, 2023 | 9:30 am - 4:30 pm CDT - Wednesday, August 23, 2023 | 9:30 am - 4:30 pm CDT

#### **Construction Site Grading and Drainage** - Tuesday, August 22, 2023 | 9:00 am - 4:30 pm CDT

**Retaining Wall Design** and Slope Stabilization Techniques - Tuesday, August 22, 2023 | 8:30 am - 4:15 pm CDT

### **Designing Accessible Pedestrian Facilities** under ADA, IBC and PROWAG

- Wednesday, August 23, 2023 | 8:30 - 11:45 am CDT - Thursday, August 24, 2023 | 8:30 am - 12:15 pm CDT

### **Open Channel Hydraulics and Design** - Friday, August 25, 2023 | 9:00 am - 4:30 pm CDT

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- Tuesday, August 15, 2023 | 2:00 - 4:00 pm CDT

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