

Agenda

Erosion and Sediment Control Requirements and Practices

B. Kulhanek

Environmental Protection Agency regulations
State and local erosion and sediment control regulations
Standards and specifications
Permitting, approval and enforcement

Goals for and Selection of Erosion and Sediment Control Practices

D. Gray

Characteristics and causes of surficial and mass erosion
Role and preservation of vegetation
Procedures for maximizing the benefits of vegetation
Bio-stabilization to protect slopes and minimize site disturbance
Grading practices: conventional vs. landforming

Non-Structural Erosion and Sediment Control Best Practices

D. Gray

Optimizing soil compaction to balance engineering requirements and plant growth needs
Composting and other treatments to aid vegetative establishment and minimize erosion
Uses of geotextiles

Stream and Bank Stabilization

D. Gray

Approaches to bank stabilization
Stream bank erosion protection: bio-stabilization techniques
Bank stabilization and repair: bioengineering case study

Structural Erosion and Sediment Control Practices

B. Kulhanek

Earthen dikes	Drainage swales
Pipe drains	Subsurface drains
Silt fences	Berms
Check dams	

Sediment Traps and Sediment Basins

B. Kulhanek

Calculating flow rates and capacity
Designing and sizing
Maintenance plans

Erosion and Sediment Control
Ann Arbor, MI - Tuesday, January 16, 2018

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Learning Objectives

You'll be able to:

Comply with federal, state and local erosion and sediment control regulations.

Set goals and adopt techniques for erosion and sediment control.

Review non-structural best practices, including soil compaction and the beneficial use of vegetation and geotextiles.

Learn techniques for stream and bank stabilization.

Explore structural erosion and sediment control practices, including earthen dikes, drainage swales, pipe drains, silt fences and berms.

Get tips on using sediment traps and sediment basins.



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Understand state and local erosion and sediment control regulations and best practices

Explore goals for the selection of erosion and sediment control best practices

Discuss structural and non-structural erosion and sediment control best practices

Learn about stream and bank stabilization

Receive tips on designing, sizing and maintaining sediment traps and basins

Continuing Education Credits

Professional Engineers

6.5 PDHs

Floodplain Managers

6.5 ASFPM CECs

Landscape Architects & Architects

6.5 HSW Continuing Ed. Hours
6.5 LA CES HSW PDHs
6.5 AIA HSW Learning Units



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Faculty

Brandon Kulhanek, CPESC *Ramboll Environ*
Mr. Kulhanek received a B.S. degree in Civil Engineering from Michigan State University. He has served as project manager and lead engineer on various water resource projects. Mr. Kulhanek has over 10 years of extensive experience in hydraulic and hydrology modeling software including HEC-RAS, HEC-HMS, SWMM, and DRAINMOD. He is experienced with the installation of surface water and groundwater monitoring equipment to collect data for calibration of modeling software. He specializes in green infrastructure design, wetland design, stream restoration design and remediation, preparation of Part 91 and MDEQ/USACE permit applications, and NPDES Phase I & II stormwater permit compliance. Mr. Kulhanek is a member of the American Society of Civil Engineers, has earned the designation of certified professional in erosion and sediment control from EnviroCert International, and is a certified stormwater operator in Michigan.

Donald Gray is a professor (emeritus) of Civil and Environmental Engineering at the University of Michigan. He received all of his degrees, including a BS degree in Geological Engineering and a PhD degree in Civil Engineering, from the University of California at Berkeley. He specializes in geotechnical engineering with a focus on slope stability, soil erosion, and bio-stabilization of slopes. Professor Gray has taught courses on the engineering properties of soils, soil/site improvement, slope stability, and engineering geology at the University of Michigan as well as professional short courses and workshops. He presented the Ralph Peck Lecture on Bio-Stabilization of Slopes and Stream Banks at the 2015 GeoCongress that was held in San Antonio, Texas. Professor Gray has served as a consultant to the National Park Service, the US Forest Service, the Natural Resources Conservation Service, the US Corps of Engineers, and most recently to the Sacramento Area Flood Control Agency. Professor Gray is the principal author of two leading reference books on slope bio-stabilization. He was also a principal investigator in a three-year project funded by the National Co-operative Highway Research Program on “Environmentally Sensitive Channel and Streambank Protection Measures.”

Seminar Information

Courtyard by Marriott Ann Arbor
3205 Boardwalk Drive
Ann Arbor, MI 48108
(734) 995-5900

Registration
8:00 - 8:30 am
Morning Session
8:30 - 11:45 am
Lunch (on your own)
11:45 am - 12:45 pm
Afternoon Session
12:45 - 4:30 pm

Tuition
\$279 for individual registration
\$259 for three or more registrations.
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Additional Learning

November Webinar Series

- Cogeneration System Principles and Practice**
- **Understanding the Benefits of Cogeneration**
Thurs., Nov. 16, 2017, 11:00 AM - 12:30 PM CST
 - **Laws, Regulations and Building Codes Impacting Cogeneration**
Thurs., Nov. 16, 2017, 1:00 - 2:30 PM CST
 - **Examining Cogeneration Technologies**
Fri., Nov. 17, 2017, 11:00 AM - 12:30 PM CST
 - **Moving to Cogeneration: Analysis, Modeling and Case Studies**
Fri., Nov. 17, 2017, 1:00 - 2:30 PM CST

- Solar Photovoltaic Project Design and Development**
- **Solar Photovoltaic Project Design and Development, Part I**
Thurs., Nov. 30, 2017, 11:00 AM - 3:15 PM CST
 - **Solar Photovoltaic Project Design and Development, Part II**
Fri., Dec. 1, 2017, 11:00 AM - 2:15 PM CST

- Construction Cost Estimating**
- **Introduction to Cost Estimating**
Thurs., Dec. 7, 2017, 11:00 AM - 12:30 PM CST
 - **Cost Components - A Closer Look at the Estimates**
Thurs., Dec. 7, 2017, 1:00 - 3:00 PM CST
 - **Cost Estimate Organization**
Fri., Dec. 8, 2017, 11:00 AM - 1:00 PM CST
 - **Cost Estimating Topics**
Fri., Dec. 8, 2017, 1:30 AM - 3:00 PM CST

- Retaining Walls and Slope Stabilization**
- **Retaining Wall Basics**
Thurs., Dec. 14, 2017, 11:00 AM - 12:00 PM CST
 - **Geosynthetics and Retaining Walls**
Thurs., Dec. 14, 2017, 12:30 - 2:30 PM CST
 - **Slope Stability and Geosynthetics**
Fri., Dec. 15, 2017, 11:00 AM - 12:30 PM CST
 - **Slope and Retaining Wall Failures, Fixes and Prevention**
Fri., Dec. 15, 2017, 1:00 - 2:30 PM CST

For more information visit:
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Registration

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How to Register		Registrant Information
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