

Agenda

Returning Native Species and Natural Habitats to Human-dominated Landscapes *D. Warners, D. Geelhoed*

- Ecology of pre-development landscapes
- Counting the costs of development: what has been lost?
- Making amends - benefits of promoting native species
- Understanding restoration ecology and reconciliation ecology
- Convincing clients and navigating the push-back/embrace drama
- Small scale and large scale restoration projects

Site Evaluation and Project Design *B. Majka, T. Aschenbach*

- Setting restoration goals
- Project objectives
- Site assessment
- Removing sources of disturbance
- Restoring ecological processes
- Restoring soil and water
- Restoring vegetation
- Monitoring and maintenance

Environmental Regulatory and Permitting Issues *S. Sutherland*

- Wetlands permitting
- Michigan Part 201 Cleanup Standards
- PFAS developments

Riparian Restoration and Enhancement Along an Urban Riverfront *H. Bobich*

- Invasive species removal
- Native seeding and tree planting
- Restoring habitat for both wildlife and people
- Maintenance and monitoring

Restoration Project Case Studies *S. Duke*

Enjoy HalfMoon Education's flexible scheduling and different program delivery options! In the event of health concerns, program may be offered as a live webinar or be rescheduled, and will also be available as an on-demand course.

Restoration of Natural Areas
East Lansing, MI - Wednesday, May 20, 2020

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PO Box 278
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Learning Objectives

You'll be able to:

- Discuss** restoration ecology and reconciliation ecology for small-and large-scale restoration projects.
- Evaluate** strategies for restoring ecological processes, vegetation, and soil and water.
- Understand** Michigan Part 201 Cleanup Standards and new developments regarding PFAS.
- Recognize** the importance of restoring riparian habitat for both wildlife and people.
- Learn** ecological restoration techniques through case studies.



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Restoration of Natural Areas

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- Return** native species and natural areas to human-dominated landscapes
- Evaluate** sites for potential restoration
- Review** environmental regulatory and permitting issues
- Restore** soils, water, vegetation and ecological processes
- Discuss** riparian restoration and enhancement
- Explore** restoration project case studies

Continuing Education Credits

- | | |
|---|---|
| Professional Engineers
6.0 Continuing Ed. Hours | Landscape Architects & Architects
6.0 HSW Continuing Ed. Hours
LA CES PDHs Pending
6.0 AIA LU HSW |
| AICP - Planners
CM 6 | International Society of Arboriculture
Pending |



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Faculty

Dr. David Warners has taught Biology at Calvin University since 1997, working in the areas of field botany, plant evolution, and community-based ecological restoration. In 2009, he was a co-founder of Plaster Creek Stewards, a university-based watershed group focused on restoring health and beauty to the highly-urbanized and degraded Plaster Creek watershed. This work involves propagating native plants for green infrastructure projects, as well as conducting ongoing research on stream microbes, macroinvertebrates, flow dynamics, and the relative success of native species in novel, urban ecosystems. Dr. Warners has served as an environmental consultant, and he has performed many botanical inventories for local townships, state parks and other organizations.

Deanna Geelhoed received her bachelor of Biology and Spanish degree from Calvin University. Since 2016, she has been working as the program coordinator for Plaster Creek Stewards, an initiative out of Calvin University to restore the health and beauty to the Plaster Creek Watershed. She educates communities about the predicament of the Plaster Creek Watershed, deemed the most polluted waterway in west Michigan. Ms. Geelhoed has a breadth of experience in designing green infrastructure, propagating native Michigan plants, and conducting various ecological restoration research projects in western Michigan.

Brian Majka is a professional restoration ecologist at GEI Consultants of Michigan, P.C., in Allendale. He has extensive experience in ecological restoration, design and implementation of wetland construction, soft shoreline engineering, prairie planting, natural areas management and best management practice (BMP) design projects with more than 19 years of experience throughout the country. He has a B.S. degree in Natural Resources and Environmental Science from Purdue University and is responsible for project management of ecological restoration design and implementation projects for GEI.

Dr. Todd Aschenbach is an associate professor in the Natural Resources Management Program at Grand Valley State University. He teaches courses in ecological restoration, wildland fire management, and soil science. Dr. Aschenbach earned his B.S. degree in Wildlife Biology from the University of Wisconsin-Stevens Point and earned his M.S. and Ph.D. degrees in Ecology & Evolutionary Biology from the University of Kansas. He has research experience in a variety of ecosystems and currently integrates fire, soil science, and invasive species management in the context of oak savanna and sand prairie restoration. Dr. Aschenbach also serves as the Michigan Representative on the Board of the Society for Ecological Restoration – Midwest Great Lakes Chapter.

Seminar Information

Marriott at University Place
300 Michigan Agricultural College Ave
East Lansing, MI 48823
(517) 337-4440

Tuition

\$299 for individual registration
\$279 for three or more registrants from the same company at the same time.

Included with your registration: Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

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

Suzanne P. Sutherland is an associate at Barnes & Thornburg LLP, where she is a member of the firm's Real Estate Department. Ms. Sutherland focuses her practice in the areas of development and construction matters and the acquisition, leasing, sale, and financing of real property. She also counsels clients on environmental compliance and enforcement (including air quality and chemical regulation); remediation, corrective action and voluntary cleanups; environmental diligence for commercial and real estate “brownfields” transactions; and wetlands permits. In addition to construction matters, she has experience counseling a range of clients on business planning, contract review, negotiation and preparation.

Heather Bobich, PWS supervises a talented team of ecologists and biologists based out of Davey Resource Group, Inc.'s, Indiana offices. She is a professional wetland scientist, is proficient with NEPA work and projects, and has been trained by the Ohio Department of Transportation in Ecological Surveys and Waterways Permitting. In addition to managing a large portfolio of diverse and complex projects, Ms. Bobich also generates pricing and proposals for a wide range of consulting and restoration projects. She works on field investigations, wetland and stream permitting, restoration and mitigation design, native landscape design, best management practice plans, construction oversight, violation resolution and facilitation, and client and agency coordination. She holds an undergraduate degree from the SPEA program at Indiana University and a master's degree in Landscape Architecture from Ball State University.

Shawn Duke is a senior staff ecologist at Cardno. He is primarily responsible for developing and implementing ecological restoration plans. His restoration experience includes invasive species control, native planting and seeding, natural shoreline design and establishment, erosion control, green infrastructure and prescribed fire. Mr. Duke also performs natural area management planning; wetland delineations; natural community, fauna and botanical surveys; soil studies; wetland delineations; mitigation projects; environmental monitoring; and endangered species reviews. He has advanced level training in aquatic entomology and limnology, completing field courses in both disciplines and performing macroinvertebrate identification for research studies. He also volunteers with the Huron River Watershed Council to assist with aquatic invertebrate data collection projects.

HalfMoon Education has applied to the International Society of Arboricultural for course approval, which is pending.

For alerts on course approvals, please email doug@halfmoonseminars.org.

This seminar offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any contractor licensing entity with a continuing education requirement.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!
Audio recordings of this seminar are available for purchase starting at \$279. See registration panel 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.

Registration

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How to Register		Registrant Information	
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		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.	
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Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$299.00**. Three or more registrants from the same company registering at the same time - **\$279.00** each.
- () **I am not attending.** Please send me the self-study package:
- ☐ Downloadable MP3 Audio/PDF Manual for **\$279.00**.
- ☐ CD/Manual Package for **\$299.00**. ☐ USB/Manual Package **\$299.00**.
(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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