

Agenda

Presented by Sara Heger, Ph.D

Development of Onsite Wastewater Treatment Technologies

- Overview of decentralized wastewater treatment
- Federal and local regulation of systems
- Technology and operation of conventional wastewater treatment systems
- Recent scientific and technical advances
- Key contaminant removal

Evaluating Sites and Setting Treatment Goals and Conventional System Design Considerations

- Factors for selecting and sizing systems
- Site and soil evaluation
- System boundaries and loadings
- Conventional system design

Alternative and Sustainable Treatment Technologies

- Aerobic treatment units
- Media filters
- Drip dispersal

Management Programs for Onsite Wastewater Treatment Systems

- Maintenance and monitoring of systems
- Monitoring of systems
- Developing maintenance plans
- Inspection and troubleshooting procedures

**Septic System Design,
Construction and Maintenance**
Charleston, WV - Wednesday, January 30, 2019

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Examine onsite wastewater treatment technologies.

Evaluate potential sites for onsite treatment systems.

Explore recent scientific and technical advances.

Examine alternative and sustainable treatment technologies, including aerobic treatment units, media filters and drip dispersal.

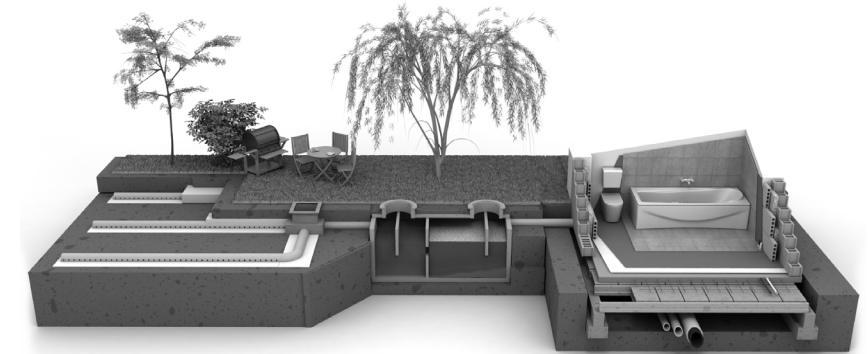
Develop septic system maintenance plans.

Review inspection and troubleshooting procedures.



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Examine onsite wastewater treatment technologies and regulations

Explore factors for selecting and sizing systems

Examine alternative and sustainable treatment technologies

Develop septic system maintenance plans

Review inspection and troubleshooting procedures

Continuing Education Credits

Professional Engineers

6.0 PDHs

Architects

6.0 HSW Continuing Ed. Hours
(Public Protection)

6.0 AIA HSW Learning Units



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Faculty



Sara Heger, Ph.D. *University of Minnesota (UMN)*
Dr. Sara Heger is an engineer, researcher and instructor at the University of Minnesota in the Onsite Sewage Treatment Program in the Water Resources Center and is an adjunct assistant professor in the Bioproducts and Biosystems Engineering Department. For over 20 years, she has been conducting research and providing education and technical assistance to homeowners, small communities, onsite professionals and local units of government regarding onsite wastewater treatment. Dr. Heger has presented in over 30 different states and provenances in North America regarding the science of wastewater treatment including design, installation and management. She is the president elect of the National Onsite Wastewater Recycling Association and the education chair of the Minnesota Onsite Wastewater Association. Dr. Heger serves on the NSF International Committee on Wastewater Treatment Systems. She is also the chair of the Minnesota State Advisory Committee on Decentralized Systems. Dr. Heger has a BS degree in Biosystems & Agricultural Engineering and MS and PhD degrees in Water Resource Science.

Here’s what past attendees had to say about the program and instructor Sara Heger:
“Great instructor; knowledgeable on the subject matter with a passion about teaching.” — *Sanitary Engineer*
“Thank you for making this an interesting subject!” — *Architect*
“A well done, thorough, and very informative presentation.” — *Engineer*

Seminar Information

Four Points by Sheraton Charleston
600 Kanawha Blvd. East
Charleston, WV 25301
(304) 344-4092

Tuition
\$279 for individual registration
\$259 for three or more registrations.
Each registration includes a 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.

Continuing Education Credit Information

This seminar is open to the public and offers 6.0 PDHs to professional engineers and 6.0 HSW (Public Protection) continuing education hours to architects in all states, excluding Florida architects. Educators and courses are not subject to preapproval in West Virginia.

The American Institute of Architects has approved this seminar for 6.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

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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 the Audio from the Live Seminar as a Self-Study Package!
An audio recording of this seminar is available for \$289. Allow four weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Additional Learning

Webinar Series

Deep Foundations

- **Deep Foundation Site Evaluation**
Weds., Dec. 12, 2018, 11:00 AM - 12:00 PM CST
- **Overview of Deep Foundations**
Weds., Dec. 12, 2018, 12:30 - 2:00 PM CST
- **Deep Foundation Pile Design**
Thurs., Dec. 13, 2018, 11:00 AM - 12:30 PM CST
- **Deep Foundation Installation and Testing**
Thurs., Dec. 13, 2018, 1:00 - 2:00 PM CST

Stormwater Management Systems

- **Stormwater Infrastructure Practices**
Weds., Dec. 19, 2018, 11:00 AM - 1:00 PM CST
- **Infiltration Management Techniques**
Thurs., Dec. 20, 2018, 11:00 AM - 1:00 PM CST

NFPA 70E Series

- **NFPA 70E, Part I**
Weds., Dec. 26, 2018, 11:00 AM - 3:30 PM CST
- **NFPA 70E, Part II**
Thurs., Dec. 27, 2018, 11:00 AM - 3:30 PM CST

Seismic Design and Construction

- **Seismology and Building Codes**
Thurs., Dec. 27, 2018, 11:00 AM - 3:30 PM CST
- **Seismic Design of Building Structures**
Fri., Dec. 28, 2018, 11:00 AM - 3:30 PM CST

Commercial Solar Peaker Batteries

- **Commercial Solar Peaker Batteries, Part I**
Wed., Jan. 9, 2019, 11:00 AM - 3:15 PM CST
- **Commercial Solar Peaker Batteries, Part II**
Thurs., Jan. 10, 2019, 11:00 AM - 2:15 PM CST

Proposal Writing
Fri., Jan. 11, 2019, 11:00 AM - 3:30 PM CDT

Technical Writing

- **Technical Writing Basics**
Mon., Jan. 14, 2019, 11:00 AM - 1:00 PM CST
- **Planning Documents**
Mon., Jan. 14, 2019, 1:30 - 3:30 PM CST
- **Writing Documents**
Tues., Jan. 15, 2019, 11:00 AM - 1:00 PM CST
- **Revising and Editing Documents**
Tues., Jan. 15, 2019, 1:30 - 3:30 PM CST

For more information visit:
www.halfmoonseminars.org/webinars/

Registration

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900	Phone: 715-835-6066	Code: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		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.
		() I need special accommodations. Please contact me.

Tuition

() **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.

() **I am not attending.** Please send me the self study-package for **\$289.00**.

☐ Downloadable MP3 Audio/PDF Manual
☐ CD/Manual Package
(Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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