

Agenda

Presented by Sara Heger, Ph.D and Chuck Cousino

Development of Onsite Wastewater Treatment Technologies

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

Evaluating Sites and Setting Treatment Goals for 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

Colorado Specific Regulations and Requirements

Management Programs for Onsite Wastewater Treatment Systems

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

Septic System Overview - Design and Management
Denver, CO - Thursday, October 17, 2019

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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.

Discuss Colorado-specific septic regulations and requirements.

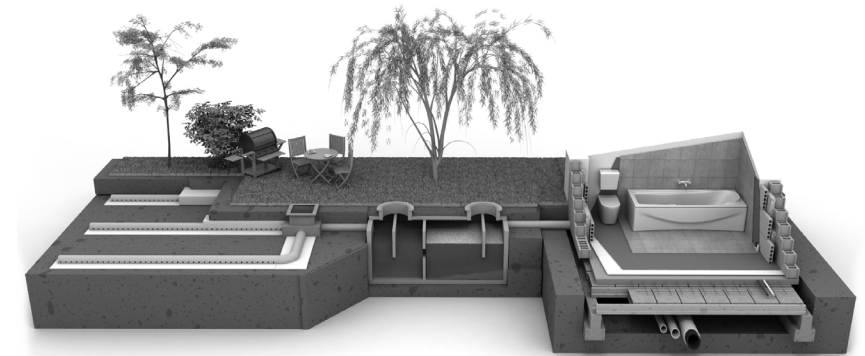
Review inspection and troubleshooting procedures.



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Examine onsite wastewater treatment technologies and regulations

Explore factors for selecting and sizing systems

Examine alternative and sustainable treatment technologies

Discuss Colorado-specific septic regulations and requirements

Review inspection and troubleshooting procedures

Continuing Education Credits

Professional Engineers

6.0 PDHs

Architects

6.0 HSW CEHS

6.0 AIA LU/HSW

Contractors

Non-Credit Continuing Ed.



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Faculty



Dr. Sara Heger is an engineer, researcher, and instructor in the Onsite Sewage Treatment Program in the Water Resources Center and is an adjunct assistant professor in the Bioproducts and Biosystems Engineering Department at the University of Minnesota. 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 states and provinces regarding the design, installation and management of septic systems and related research. She is president-elect of the National Onsite Wastewater Recycling Association and is 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



Mr. Chuck Cousino is the onsite wastewater treatment system coordinator at the Colorado Department of Public Health and Environment. He earned a bachelors of science degree in Environmental Health from Ferris State University in Big Rapids, Michigan, and is a registered environmental health specialist. Mr. Cousino has spent his entire career working in the onsite wastewater industry. The majority of his experience came from almost 25 years as a project manager at a civil engineering firm in Southeast Michigan where he gained extensive experience in site/soils evaluations, alternative onsite wastewater system design and the operation and maintenance of residential and small-scale wastewater treatment systems. Mr. Cousino is a former chair of the Michigan Onsite Technical Advisory Council. He is a former president of the Michigan Onsite Wastewater Recycling Association, the Colorado Professionals in Onsite Wastewater and the national association of State Onsite Regulators.

Seminar Information

Renaissance Denver Stapleton Hotel
3801 Quebec Street
Denver, CO 80207
(303) 399-7500

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 - 4:00 pm

Tuition
\$289 for individual registration
\$269 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 HSW continuing education hours to architects in all states. Educators and courses are not subject to preapproval in Colorado.

This seminar is approved by the American Institute of Architects for 6.0 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA information under this course listing.

This course also offers 6.0 PDHs to professional engineers in all states with mandatory continuing education.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), , North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects.

This event also offers a non-credit continuing education opportunity to construction contractors. It has not been submitted to any state contractor licensing entity for continuing education approval.

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.

Additional Learning

Webinar Series

Structural Design and Ethics

- **Structural Design: Ethical Issues**
Thurs., August 15, 2019, 11:00 AM - 12:00 PM CDT
- **Structural Design: Gravity Forces**
Thurs., August 15, 2019, 12:30 - 2:30 PM CDT
- **Structural Design: Lateral Forces**
Fri., August 16, 2019, 11:00 AM - 12:30 PM CDT
- **Structural Design: Wind, Seismic and Connections**
Fri., August 16, 2019, 1:00 - 2:30 PM CDT

Proposal Writing

Wed., August 7, 2019, 11:00 AM - 3:30 PM CDT

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

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 \$269. 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
Online: www.halfmoonseminars.org		Name: _____
Phone: 715-835-5900		Company/Firm: _____
Fax: 715-835-6066	Code:	Address: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		City: _____ State: _____ Zip: _____
Complete the entire form. Attach duplicates if necessary.		Occupation: _____
		Email: _____
		Phone: _____
		Additional Registrants:
		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
		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 - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.
- () **I am not attending.** Please send me the self-study package:
 - ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
 - ☐ CD/Manual Package for **\$289.00**.(Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

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