

Agenda

*Presented by Steven R. Pannone, P.E. and
Joseph Lawendowski*

Overview of Onsite Wastewater Treatment Technologies

Technology and operation of conventional wastewater treatment systems
Problems with conventional onsite systems
Recent scientific and technical advances
Performance-based management of systems

Regulation, Permitting and Sustainability of Onsite Wastewater Treatment Systems

Federal, state and local regulation of systems
Coordinating system regulation with surface and groundwater regulations
Treatment of systems under LEED certification systems
Permit requirements and procedures
Permitting procedures

Evaluating Sites and Setting Treatment Goals

System boundaries and loadings
Analyzing the receiving environment
Evaluating landscape and soil types
Nitrogen and pathogen removal
Treatment/removal of phosphorus and other pollutants
Mapping the site

Conventional Treatment System Selection and Design

Factors for selecting and sizing systems
Design considerations
Initial system design

System performance

Alternative and Sustainable Treatment Technologies

Aerobic treatment systems
Peat biofilter wastewater treatment systems
Drip dispersal wastewater disposal systems
Fixed-activated sludge treatment
Recirculating sand filters
Sequencing batch reactors
Vegetated submerged beds
Enhanced nutrient removal
Stabilization ponds and constructed wetlands

Trickling filters

Evapotranspiration

Management Program for Onsite Wastewater Treatment Systems

Monitoring of systems
Developing maintenance plans
Inspection procedures

Repair options

Septic System Design, Construction and Maintenance

Anchorage, AK - Thursday, February 7, 2019



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Learning Objectives

You'll be able to:

Explore the technology and operation of conventional wastewater treatment systems.

Coordinate septic system regulation with surface and groundwater regulations.

Examine factors for selecting and sizing systems.

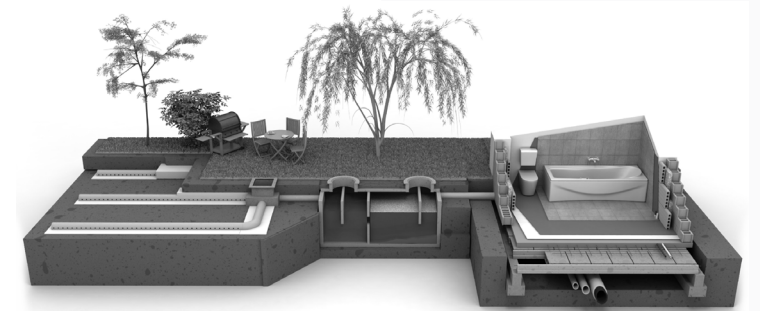
Consider alternative and sustainable treatment technologies, including aerobic treatment systems, sand filters and drip dispersal systems.

Implement management programs for onsite wastewater treatment systems.



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Get an overview of onsite wastewater treatment technologies

Learn about regulation, permitting and sustainability of onsite systems

Evaluate sites and set treatment goals

Discuss conventional treatment system selection and design

Investigate alternative and sustainable treatment technologies

Set up maintenance and monitoring plans

Continuing Education Credits

Professional Engineers

6.5 HSW PDHs

Architects

6.5 HSW PDHs/CE Hours

6.5 AIA HSW Learning Units



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Steven R. Pannone, P.E.
Principal of Pannone Engineering Services LLC, in Anchorage, AK
Mr. Pannone is a registered civil engineer specializing in the planning, design and construction of sanitation facilities. He is a lifelong Alaskan with more than 30 years of engineering and construction experience. Mr. Pannone’s background includes experience in survey, design, construction, testing and monitoring of engineered projects. He has worked all over the state of Alaska, including extensive time in the arctic and remote regions. Mr. Pannone takes a practical approach to design, taking into account who is going to be doing the construction and how it will be done. He has hands-on experience in the construction of water and wastewater systems, buildings and large earth works projects. Mr. Pannone is a certified ADEC water/wastewater designer and sanitary surveyor. He is the founder of Pannone Engineering Services LLC. This privately-owned company was founded in February of 1991. The company has specialized in the design, testing and installation of on-site water and wastewater systems. Pannone Engineering Services (PES) have performed engineering designs, analysis and evaluations of water and wastewater systems throughout Alaska. The types of systems have ranged from small single-family septic systems to large commercial systems serving greater than 100 people daily. PES typically tests between 90 and 150 septic systems a year and designs approximately 50 to 75 new or upgraded systems. PES has an excellent working relationship with the Municipality of Anchorage and the State Department of Environmental Conservation.



Joseph Lawendowski
Civil Engineering, EIT, with Pannone Engineering Services LLC, in Anchorage, AK
Mr. Lawendowski specializes in residential structural design and water/wastewater systems, and he is a residential building inspector. He is a longtime Alaskan who retired from the military after more than 23 years of service and has more than five years of engineering and construction experience. Mr. Lawendowski’s background includes experience in design, construction, testing and monitoring of engineered projects. He has worked all over the state of Alaska, including extensive time in the arctic and remote regions. Mr. Lawendowski takes a practical and economical approach to design, taking into account who is going to be doing the construction and how it will be done. He has hands-on experience in the construction of water and wastewater systems, the construction and renovation of buildings and large earth works projects.

Seminar Information Additional Learning

Anchorage Marriott Downtown
820 West 7th Avenue
Anchorage, AK 99501
(907) 279-8000

Tuition
\$279 for individual registration
\$259 for three or more simultaneous registrations.
Included with your registration: Complimentary continental breakfast and printed seminar manual.

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:00 pm
Lunch (on your own)
12:00 - 1:00 pm
Afternoon Session
1:00 - 4:30 pm

How to Register

- Visit us online at www.halfmoonseminars.org
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- 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 6.5 HSW PDHs (continuing education hours) to engineers and architects in most states, including Alaska. Educators and course are not subject to preapproval in Alaska.

This course is approved by the American Institute of Architects Continuing Education System for 6.5 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

Engineers and architects seeking continuing education credit in other states will be allowed to apply the hours earned at this seminar, in most cases. Refer to specific state rules to determine eligibility.

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.

Webinar Series

- Fiber-Reinforced Composites**
- **Portland Cement and Masonry**
Thurs., Jan. 17, 2019, 11:00 AM - 1:00 PM CST
 - **Fiber-Reinforced Composites**
Thurs., Jan. 17, 2019, 1:30 - 3:30 PM CST
 - **Fiber-Reinforced Polymer (FRP) Composites Reinforcement**
Fri., Jan. 18, 2019, 11:00 AM - 1:00 PM CST
 - **Overview of Sandwich Materials and Structures**
Fri., Jan. 18, 2019, 1:30 - 3:30 PM CST

- Pumping and Piping Systems**
- **Introduction to Pumps: Operation, Principles and Calculations**
Thurs., Jan. 24, 2019, 12:00 - 2:00 PM CST
 - **Design Standards and Codes**
Thurs., Jan. 24, 2019, 2:30 - 3:30 PM CST
 - **Piping System Components, Materials and Calculations**
Fri., Jan. 25, 2019, 12:00 - 2:00 PM CST
 - **Handling Pump and Piping System Problems**
Fri., Jan. 25, 2019, 2:30 - 3:30 PM CST

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

Registration

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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.
		() 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

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