

We look forward to
welcoming you back!



33rd ANNUAL SPRING SEPTIC SYSTEM CONFERENCE & EXPO

Monday, March 7 & Tuesday, March 8, 2022

DoubleTree by Hilton Manchester Downtown, Manchester, NH

Our two-day conference is THE industry event of the year. Approval pending by NHDES for up to six (6) continuing education credit hours each day.

REGISTER TODAY!

Seating is limited, so don't miss out on this one-stop continuing education opportunity.

Register in advance by February 26, 2022 and avoid a \$40 late registration fee!

Click [here](#) to register online or follow the link provided on the home page of [gsowa.org](#).

HAVE QUESTIONS?

Call us at (603) 228-1231 or email us at info@gsowa.org.

Thank you to our
Gold Member
Sponsors:



Continuing Education Approvals

GSOWA has applied for the following approvals of this program for permits or licenses held by the following professionals. We will update our website as approvals are granted or confirmed.

- N.H. Licensed Septic System Evaluators
- N.H. Permitted Designers and Installers (daily programs for up to 6 credits)
- Vermont Class A and Class B Licensed Designers
- Maine Site Evaluators, Certified System Installers, and Certified System Inspectors
- Massachusetts (NEIWPC) Soil Evaluators and System Inspectors

NH Certified Wetland/Soil Scientists:

Per March 2011 changes to the administrative rules of the NH Joint Board, the board does not pre-approve programs. As a CWS/CSS, you are to determine the applicability of a particular hour(s) of session time to the practice of wetland or soil science.

Thank you!

Conference badge lanyards sponsored by MiltonCAT



Tote-bags sponsored by Eljen Corporation



Certificates

Daily sign in will be required. New for 2022! All designers and installers will receive a daily credit form which you must keep with you throughout the day. At the end of each session attended, you must get a stamp or sticker on your form for the session. GSOWA session room host(s) will distribute them at the end of each session. If you do not attend the full session, you will not receive a sticker or stamp. It will be your responsibility to safeguard your form(s) by making a copy after the event. GSOWA will be unable to provide replacement copies. Total credits earned are based on those eligible sessions you attend and for which you receive a stamp/sticker. You will provide those to the state when submitting your renewal.



Parking at the Doubletree by Hilton Manchester Downtown



A lower "event" rate of \$6 (for up to 8 hours) will be extended to all who use the Granite Street garage connected to the hotel. Bring your parking ticket to the GSOWA registration desk to validate it to receive the event rate! Oversized vehicles may not fit in the garage.

Why not consider carpooling?

33rd ANNUAL SPRING SEPTIC SYSTEM CONFERENCE & EXPO

MONDAY, MARCH 7, 2022

8:00 AM

Check-in and Exhibit Hall Opens with Continental Breakfast

8:45 - 9:00 AM

GSOWA Annual Meeting & Election of Officers & Directors

Conference Welcome and Announcements

Carl Hagstrom, Conference Committee Chairman, Monadnock Septic Design, LLC

9:00 - 10:00 AM OPENING GENERAL SESSION

Meet the Land Resources Management Manager

Phillip Trowbridge, PE, Manager, Water Division, NHDES, Concord, NH

Join us as we welcome Phillip Trowbridge, PE as he introduces himself as the leader of the Land Resource Management program under which the Subsurface Systems Bureau resides. He will provide us with an update about the various bureaus he manages and will identify some of the priorities he is focusing on as we work together to safeguard the environment and also serve the citizens of NH.

10:00 - 10:45 AM BREAK WITH EXHIBITORS

10:45 - 11:45 AM BREAKOUT SESSIONS I

A. High Strength Wastewater

Gary Spaulding, Advanced Onsite Solutions, Concord, NH

The definition of high-strength wastewater continues to evolve and so too does the process for treating it in the on-site environment. Wastewater concentration is one consideration among others when creating systems to properly manage and treat today's wastewater challenges. Whether at home or in a commercial operation, the hobbies and business operations in either location demands a different approach to system development. Operations such as fast-food, drive-thru venues, bakeries, home and commercial breweries are among the activities that require innovative treatment methods to handle the higher-concentration and strength of today's wastewater stream.

B. Keeping Things Street Legal: NH State Police CDL Update (Licensing & Equipment)

Trooper Scott Atherton, NH State Police, Concord, NH

This popular annual session never ceases to attract a legion of installers who are interested in keeping up to date with both state and federal motor carrier rules and laws that could impact their ability to get to the job site and get the work done. A discussion of CDL licensing and proper equipment securement for over-the-road transport never disappoints with the questions and answers that are generated during the session.

C. NHDES Residuals Management Section: PFAS Investigation Update

Anthony F. Drouin, Sludge and Septage Coordinator, NHDES Residuals Management Section, Concord, NH

This presentation covers the agency's efforts and findings of the sludge/ biosolids PFAS investigations since 2016. It will also cover the path forward concerning emerging contaminants in biosolids. including new rules and regulations either already in effect or on their way. The design and installation of future systems will likely be impacted by measures being taken or proposed to manage the evolving PFAS problem.

11:45 AM - 1:00 PM BUFFET LUNCH WITH EXHIBITORS - SPONSORED BY INFILTRATOR WATER TECHNOLOGIES



1:00 - 2:00 PM BREAKOUT SESSIONS II

A. Pumps, Panels, & Electrical Issues (Installer Focus)

Rob Phillips, AAA Pump Service, Manchester, NH

This session will offer a look at some of the common installation and troubleshooting considerations around pumps. What are some must-do practices when installing a pump system and where to begin when the customer reports a problem?

B. Identifying & Onsite Management of Invasive Plants

Chris Albert, Owner, CSA Environmental Consultants, Nottingham, NH

Invasive plant species are literally growing into a huge issue for those involved in land use, including those who design and install septic systems. No only can certain species wreak



MONDAY, MARCH 7, 2022 (CONTINUED)

havoc with system components, as professionals literally moving soil and onsite plant species, we want to help prevent the spread of “invasives”. Learn about some of the more common plants, how to identify them and help prevent their spread while working on the jobsite.

C. Designing & Installing Grease Interceptors

Kevin Sherman, Director of Engineering and Regulatory Affairs, SeptiTech, Inc., Lewiston, ME

Grease interceptors are critical structures in preventing fat, oil and grease interference with sanitary waste treatment. The design concept for a grease interceptor focusses on cooling the contents to a temperature low enough to allow animal fat to solidify and be retained in the interceptor until removed by pumping. The three keys to grease interceptor performance are time, temperature and (the absence of) turbulence. Sizing of grease interceptors based on fixture unit equivalents, peak flows and ultimately to a design surface area for tankage, will be described using a food service establishment example.

2:00 - 3:00 PM BREAKOUT SESSIONS III

A. Pumps, Panels & Electrical (Designer Focus)

Rob Phillips, AAA Pump Service, Manchester, NH

During his second session, Rob will continue the conversation about pumps with a focus on design considerations including pump sizing, pump specifications and dosing. He will also touch on NH time-tested pumps as well as highlight any newer technologies.

B. SWPPPs - Managing Erosion & Stormwater on Construction Sites

Kenneth A. Berry, PE, LLS, CPSWQ, CPESC, CESSWI, Principal VP of Technical Operations, Berry Surveying, Barrington, NH

This presentation will cover Erosion Prevention and Sediment Control Measures that are required to be taken on all construction sites. The concentration of the discussion will be small construction sites that might not necessarily fall under the active jurisdiction of State and Federal regulators. The “Permit By Rule” aspect of the New Hampshire Alteration of Terrain program will be outlined providing resources and opportunities to further a contractors skills, as well as the EPA Construction General Permit and when that may become applicable. The presentation will be provided from both a designers and an inspectors standpoint.

C. The Ethics of Contracts & Professional Services in the Environmental Arena*

Thomas S. Burack, Esq., Sheehan Phinney, Manchester, NH

This program will explore key ethical challenges and obligations facing environmental professionals, with a particular focus on contract terms and professional duties of care as a basis for ensuring ethical behaviors and practices. The program will explain the differences and linkages between ethics and the law, explore the value of having written contracts, discuss contract formation and related liability risks, and review special considerations when taking over a project midstream. Issues of competition and reporting, including on unlicensed work and those who don't play by the rules, as well as mandatory reporting of certain environmental conditions, will also be addressed.

** This session good for one hour of ethics for Certified Wetland and Soil Scientists.*

3:00 - 3:30 PM BREAK WITH EXHIBITORS

3:30 - 4:30 PM CLOSING GENERAL SESSION

Septic Systems & the LakeSmart Program

Krystal Costa Balanoff, NH LAKES Conservation Program Manager, Concord, NH

NH LAKES recently launched LakeSmart—a statewide education, evaluation, and recognition program designed to make lake-friendly living the cultural norm in New Hampshire. Every year, hundreds of property owners participate in this program to learn how to keep our lakes clean and healthy—including addressing sources of nutrients and bacteria from septic systems. Krystal will discuss what the program has revealed about the state of septic systems around New Hampshire's lakes, how you can connect with more lake residents through this program, and the vital role of septic education at the time of service.

Conference Exhibitors

(2022 Participating Exhibitors as of 1/21/2022)

- AAA Pump Service, Inc.
- Advanced Onsite Solutions, LLC
- Beauregard Equipment
- CADNET Services, LLP
- CSI - Represented by Harmon & Co., Inc.

33rd ANNUAL SPRING SEPTIC SYSTEM CONFERENCE & EXPO

TUESDAY, MARCH 8, 2022

Check-in and Exhibit Hall Opens with Continental Breakfast

8:45 - 9:00 AM

Conference Welcome & Announcements

Carl Hagstrom, Conference Committee Chairman, Monadnock Septic Design, LLC

9:00 - 10:00 AM OPENING GENERAL SESSION

Smart Septics - Beyond Remote Monitoring, How the "Internet of Things," AI and Machine Learning will Improve the Reliability and Sustainability of Decentralized Sewage Systems.

Kelly Galloway, P. Eng., Founder/CEO, SepticSitter™, Stratford, PEI, Canada,

We welcome to the podium someone who is known as the Queen of the Throne who collaborates with major septic system industry manufacturers, academia and industry organizations on how the use of electronic monitoring devices can help make on-site sewage disposal systems more sustainable, reliable and cost effective. Prior to the pandemic, Kelly has presented to other state and regional septic industry groups. Her presentation will focus attention on the evolving and growing role of such technology in our industry.

10:00 - 10:45 AM BREAK WITH EXHIBITORS

10:45 - 11:45 AM BREAKOUT SESSIONS I

A. Biological Nutrient Reduction in a Media Filter

Kevin Sherman, Director of Engineering and Regulatory Affairs, SeptiTech, Inc., Lewiston, ME

During this session, Kevin will discuss the operational process for the use of media filters in the reduction of nitrogen in both residential and commercial septic systems. The technology includes a recirculating trickling filter using high surface area polystyrene bead media. Topics will include how you operate and maintain a system which uses a media filter. He will address factors relevant to both designers and installers.

B. Zen and the Art of Heavy Equipment Maintenance

Mike Robinson, Sales Representative, MiltonCAT, Londonderry, NH

Here in New England, we have high expectations of longevity and faithful service when it comes to our heavy construction equipment. Keeping things running smoothly during a busy construction season takes a lot more than just luck, It takes know how and proper maintenance. Our speaker will address the importance of regular/routine maintenance and what some of the tried and true on-site fixes are when things do go wrong. He will also give an update on some of the latest innovations out there to help you build systems on time and cost-effectively.

C. Problem Hydric Soils Indicators - What Septic System Professionals Need to Know

James P. Gove, Certified Wetland Scientist, Certified Soil Scientist, Certified Soil Classifier, Certified Professional in Sediment and Erosion Control Gove Environmental Services, Inc.. Exeter, NH

There are some hydric soil indicators that are considered

Eastcom Associates
Eastpoint Lasers, LLC
E.J. Prescott, Inc.
Eljen Corporation
F.R. Mahony & Associates, Inc.
Fuji Clean
InspectorCameras.com
Infiltrator Water Technologies

J & R Sales and Service, Inc.
MiltonCAT
New England Laser & Transit Co.
NHDES Residuals Management
NHDES Subsurface Systems Bureau
Polylok, Inc.
Pump Systems, Inc.
R.E. Prescott Co., Inc.

Scherbon Consolidated, Inc.
Septic Assistant, LLC
SeptiTech
Shea Concrete Products, Inc.
Sludgehammer Group, Ltd.
The Dirty Bird
William N. Lamarre Concrete Products, Inc.



TUESDAY, MARCH 8, 2022 (CONTINUED)

to be applicable to determination of wetness in problem soils. In these cases, hydric soils exist that do not meet any of the currently listed national indicators. The New England Hydric Soil Technical Committee has recognized certain soil morphologies that field experience suggest are indicative of a hydric soil. These indicators may be used in problem wetland situations where evidence of wetland hydrology and hydrophytic vegetation is clearly present. This presentation will discuss the interpretation and application of the indicators for problem hydric soils.

11:45 AM - 1:00 PM

BUFFET LUNCH WITH EXHIBITORS

1:00 - 2:00 PM GENERAL SESSION

Protection of Wells from Individual Sewage Disposal Systems

Abby Thompson Fopiano, Hydrologist and Owner of Edgewater Strategies, Gilford, NH

With drinking water resources and their protection a hot topic today, this session is important for all septic professionals to take part in. NH has many rules about separation distances between drinking water wells and septic systems. What are they? And why? This talk will discuss the rules, types of wells and well construction requirements to meet the rules, and case studies for why it is important.

2:00 - 3:00 PM BREAKOUT SESSIONS II

A. Large Flow On-Site Advanced Treatment Systems

Dennis Fogg, Infiltrator Water Technologies, Whitefield, NH

This presentation will examine Advanced Enviro-Septic and Enviro-Septic technologies utilized for various advanced treatment performance criteria in large flow systems of up to 100,000 GPD. Presby Environmental has long proclaimed that our passive, treatment technology is scalable. These case studies demonstrate the scalability and versatility of these systems as a solution to large-scale wastewater challenges.

B. LIDAR - What is it? How to Use it as a Tool in Your Septic System Practice

Ray Hintz, Ph.D., University of Maine, Orono, ME

LIDAR, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. A LIDAR instrument principally consists of a laser, a scanner, and a specialized GPS receiver. During this session, Ray Hintz, Ph.D. from the University of Maine's Surveuomg

Engineering Technology program will discuss how land use professionals can use Lidar as another tool in their practice, including acceptable methods to tie it to onsite elevations/features to create usable site plans without the need for GPS or other high-cost equipment.

C. Septic Tanks: Matters of Function & Maintenance and Lessons Learned from the Field

Larry Maznek, Maznek Septic Service, Bedford, NH

During this session, a seasoned septic system pumper and evaluator will offer information valuable to system evaluators, designers and installers as he highlights important aspects of tank function and proper maintenance issues. He will review the different types of tanks and tank baffles that installers evaluators will encounter in the field; discuss how tanks should function and work and help sort out fact from fiction about the role of a tank in a properly-functioning septic system. The importance of gravity and how a tank is set; water retention time and other important factors will be addressed.

3:00 - 3:20 P.M. REFRESHMENT BREAK

3:20 - 4:15 PM CLOSING GENERAL SESSION

NHDES Subsurface Systems Bureau Administrator's Update and System Reviewers and Inspectors Panel Discussion

Rob Tardif, PE, Administrator, NHDES SSB and System Reviewers and Inspectors, Concord, NH

During this session, hear the latest on process and procedures within the bureau and get an update on the status of rule changes which the bureau is currently in the process of reviewing and rewriting over the coming months. After Rob's portion of the program, we will hear from members of the bureau's plan review and on-site construction inspection staff about important reminders and things they are focusing on during final system inspections prior to backfill. This is the opportunity to ask your questions where all will benefit from hearing the answers.

A Note Regarding COVID

Though optional, we strongly encourage the use of masks for this event. A limited number of disposable masks will be available for those who prefer to wear one. When and where possible based on attendance, we will allow for more spacing between seats during sessions and at meal tables.

Online registration is available AND you can use a major credit card too!

Visit GSOWA.org and click on the registration link on our home page.

33rd ANNUAL SPRING SEPTIC SYSTEM CONFERENCE & EXPO

Doubletree by Hilton Manchester Downtown

MONDAY, MARCH 7 & TUESDAY, MARCH 8, 2022

Company/Town/Agency Affiliation: _____

Business Address: _____

City/State/Zip: _____

Email: _____ Phone: _____

GSOWA Member? (yes/no) _____ Employees and spouses of members can register at the member rate if the member registers at the same time.

To register online (via credit card or check), click [here](#). Please alert us to any dietary restrictions or ADA requirements.

Attendee Name: _____

- Monday & Tuesday Program
 Monday Program ONLY
 Tuesday Program ONLY
 Designer # _____
 Installer# _____
 Pumper
 Evaluator

Attendee Name: _____

- Monday & Tuesday Program
 Monday Program ONLY
 Tuesday Program ONLY
 Designer # _____
 Installer# _____
 Pumper
 Evaluator

Attendee Name: _____

- Monday & Tuesday Program
 Monday Program ONLY
 Tuesday Program ONLY
 Designer # _____
 Installer# _____
 Pumper
 Evaluator

Registration Fees (per person)

Two-Day Program:	\$210 Member rate	\$270 Non-Member Rate
Monday ONLY:	\$140 Member rate	\$180 Non-Member Rate
Tuesday ONLY:	\$140 Member rate	\$180 Non-Member Rate

Register in Advance by February 26 to Avoid Higher Rates! Walk-in registrations and those who register after this date will incur an additional processing fee of \$40 per person.

Any registration changes made after February 26 are subject to a \$25 administrative fee.

Total Amount: \$ _____

Please make checks payable to: GSOWA or charge my VISA / Mastercard (American Express not accepted)

Card Number: _____ Exp. Date: _____ CVV # _____

Name on Card: _____

Mailing Address if different than above: _____

Cancellation Policy: Advance registrations are important to ensure adequate accommodations.

Cancellations made on or before February 26, 2022 will qualify for a full refund. No refunds will be offered after that date as commitments have been made to the hotel.

Return by mail to: GSOWA, 17 Depot Street, Suite 3, Concord, NH 03301



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Return Service Requested

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Visit [GSOVA.org](https://www.gsova.org) and click on the registration link on our home page.

Overnight Accommodations: Need a hotel guestroom? A limited block of rooms are available at Doubletree by Hilton Manchester Downtown at the GSOVA rate of \$149 plus tax per night. Call 603-625-1000 and ask for the Granite State Onsite Wastewater Association rate or go online at: <https://group.doubletree.com/abd97z>. The room reservation cut-off date is Sunday, February 20, 2022.