

Waterfront Living in Vermont: A Septic Solutions Conference

May 9, 2019

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WELCOME PACKET Agenda

Time	Topic	Presenter
8 - 8:30	Vendor set-up	
8:30 - 9	Sign-in, pre-survey, refreshments	
9 - 9:10	Welcome and Logistics	Gianna Petito , <i>District Manager</i> , Winooski Natural Resources Conservation District
9:10 - 9:30	Vermont Waterways and Why Septic Matters	Eric Howe , <i>Program Director</i> , Lake Champlain Basin Program
9:30 - 10:30	Septic 101 (+webinar)	Graham Bradley , <i>Program Hydrogeologist and Soil Geologist</i> , Vermont Department of Environmental Conservation Drinking Water & Groundwater Protection Division
10:30 - 11:15	Speaking from Experience - Case Studies from Your Neighbors	Linda Patterson , <i>Water Quality Educator</i> , Lake Champlain Sea Grant Lynette Claudon , <i>Chief Pollution Control Design Engineer</i> , Vermont Department of Environmental Conservation Clean Water State Revolving Fund Program Jim Fitzpatrick , <i>Thompson's Point Resident</i>
11:15 - 12:00	Septic Regulations and Beyond for Shoreline Preservation	Ernie Christianson , <i>Regional Engineer Manager</i> , Vermont Department of Environmental Conservation Drinking Water & Groundwater Protection Division Amy Picotte , <i>Lakeshore Manager</i> , Vermont Department of Environmental Conservation Watershed Management Division
12:00 - 12:45	Lunch and Vendors Meet and	



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12:45 - 1:30	Phosphorus Treatment in Onsite Septic Systems	George Heufelder , <i>Co-Director</i> , Massachusetts Alternative Septic System Test Center
1:30 - 2:15	Alternative and Innovative Septic Technologies for Small Waterfront Lots	Jared Willey , <i>Co-owner</i> , Advanced Onsite Services Dan Ottenheimer , <i>Owner</i> , Oakson
2:15 - 2:45	Financing Assistance and Strategies	Chris Rottler , <i>Onsite Loan Program Manager</i> , Vermont Department of Environmental Conservation Facilities Engineering Division Thomas Brown , <i>CWSRF Program Lead</i> , Vermont Department of Environmental Conservation Facilities Engineering Division Alyssa Peteani , <i>Loan Officer</i> , Champlain Housing Trust
2:45 - 3	Post-Surveys, Raffle drawing*, close out	Gianna Petito , <i>District Manager</i> , Winooski Natural Resources Conservation District

*To participate in the raffle drawing, be sure to take a pre-survey (at check-in table) and post-survey (in this packet). Speak with tabling vendors over lunch to get a stamp and increase your raffle entries. Raffle door prizes include:

1) A Trip for Two on one of Lake Champlain Sea Grant’s Summer Boat Cruises.

You and a guest are invited to join Lake Champlain Sea Grant, UVM Extension and ECHO for one of our *Summer on the Lake* educational boat cruises! On various dates during July and August 2019, the public is invited aboard the UVM research and education vessel, the *Melosira*, to build geologic, cultural, and historical knowledge about Lake Champlain and its watershed, and for some of the trips, to try their hands as limnologists (those who study lakes, streams and other inland waters). Each trip will focus on one of two themes, either *Stories of Lake Champlain* or *Lake Champlain Live*. This raffle prize entitles you to a trip for two on one of the planned trip dates. You must pre-register at least 3 weeks in advance with Kris Stepenuck (kris.stepenuck@uvm.edu) or Ashley Eaton (ashley.eaton@uvm.edu) to participate. Learn more and see available dates at: <https://www.uvm.edu/seagrant/public-boat-trips-lake-champlain-aboard-rv-melosira>



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2) A Free Septic Consultation from Advanced Onsite Services. AOS professionals will measure solids levels in your septic tank, clean the effluent filter, and check the D-box and/or pumping system for proper function. They will then develop a written report with recommendations for you. System owner must locate and expose covers. System must be located in VT.



SPEAKER BACKGROUNDS



Graham Bradley, *Program Hydrogeologist and Soil Geologist*, VTDEC
Graham joined the Vermont Department of Environmental Conservation (DEC) in 2017. He is responsible for reviewing hydrogeological analyses, wastewater system designer training and exams, and approving innovative and alternative systems. Immediately prior to joining the DEC, Graham taught hydrogeology and engineering geology at SUNY Oswego, and conducted geological research in Uganda. He spent the first 17 years of his career with the consulting company Golder Associates in the UK and Canada, where he worked on projects as varied as contaminated sites, mining, and radioactive waste disposal.

Thomas Brown, *CWSRF Program Lead*, VTDEC

Tom has a BS in Business Management from Johnson & Wales University and has been in the public infrastructure operations, regulation, and management for over 25 years. He has been with DEC for over 15 years between the Drinking Water and Groundwater Protection Division and the Facilities Engineering Division. Tom is now in his 3rd year in the Clean Water State Revolving Loan Fund program as a Project Developer.

Ernie Christianson, *Regional Engineer Manager*, VTDEC

Since January 2011, Ernie Christianson has been the Program Manager of the Regional Office Program which administers the Wastewater System and Potable Water Supply Rules. Prior to becoming the Program Manager, Ernie served as the Regional Engineer in the Essex Office and the Rutland Office. As of April 12, 2019, the Program has new rules governing wastewater systems and potable water supplies.

Lynette Claudon, *Chief Pollution Control Design Engineer*, VTDEC

Lynette Whitney Claudon, PE has a BS in Civil Engineering from the University of Maine and is a Vermont Registered Professional Engineer. Lynette has been practicing engineering in Vermont for over twenty years specializing in water and wastewater systems and site development. Lynette has been working as an engineer for the Vermont Department of Environmental Conservation's Clean Water State Revolving Fund for over six years as the Chief Pollution Control Design Engineer. She also is currently working on an Interagency Committee to help promote and improve the process for the development of community water and wastewater systems in Vermont Villages.



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Jim Fitzpatrick, *Thompson's Point Resident*

Jim served as treasurer for a camp owners' planning committee for a central sewer treatment system. The committee successfully completed its planning leading to the financing and construction of a functioning central sewage treatment system.



George Heufelder, *Co-Director*, Massachusetts Alternative Septic System Test Center

George Heufelder is one of the founders of the Massachusetts Alternative Septic System Test Center, a division of the Barnstable County Department of Health and Environment. Since 1999, the Test Center has researched various aspects of onsite septic systems and tested products from nearly every major manufacturer of treatment products. He is the author of several grants and publications dealing with contaminants from onsite septic systems including viruses, Contaminants of Emerging Concern (CEC), phosphorus, nitrogen and others. He is a Certified Soil Evaluator, Registered Sanitarian and Class 4 Wastewater Treatment Plant Operator in the Commonwealth of Massachusetts. George has a B.S. in Biology from Kansas State University and a M.S. in Aquatic Biology from Eastern Michigan University.



Eric Howe, *Program Director*, Lake Champlain Basin Program

Eric became the Director of the Lake Champlain Basin Program in 2016. Eric joined the LCBP in 2009 as the Technical Coordinator, where he managed LCBP-funded research projects and coordinated the LCBP Technical Advisory Committee. He holds a Ph.D. in Natural Resources and an M.S. degree in Wildlife and Fisheries Biology from the University of Vermont, and undergraduate degrees in environmental biology and ecology from SUNY-Environmental Science and Forestry and Paul Smith's College. His research experience includes examining the effects of shoreline development on the quality of shallow-water habitat in Vermont's inland lakes and ponds, sea lamprey management in Lake Champlain, acid deposition on numerous Adirondack ponds, aquatic plant management, and extensive water quality monitoring experience in New York and Vermont.



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Dan Ottenheimer, *Owner*, Oakson

Daniel Ottenheimer has served the on-site wastewater profession for 25 years as an environmental engineer for the MassDEP, as the Public Health Director for Gloucester, Massachusetts, and as an engineer, consultant, designer, soil evaluator, system inspector and drip dispersal system expert. He also sits on several state and regional wastewater advisory committees. Mr. Ottenheimer is president of Oakson, New England's leading distributor of drip dispersal systems which is dedicated to providing permanent wastewater disposal solutions for small- and large-flow applications. Mr. Ottenheimer

holds a B.S. in Environmental Engineering from Tufts University and an M.S. in Water Resource Management from the State University of New York College of Environmental Science and Forestry.

Linda Patterson, *Water Quality Educator*, Lake Champlain Sea Grant



Linda Patterson is a Water Quality Educator and Land Use Planner for Lake Champlain Sea Grant. Linda is responsible for developing programs that target real estate professionals, watershed groups and municipal employees. She has worked closely with Graham Bradley, DEC, to create and implement a septic workshop for Vermont real estate professionals. Linda and her family have owned an

Innovative/Alternative (I/A) septic system at their property on Lake Champlain for over 10 years. She is well acquainted with some of the benefits and challenges of I/A systems, and looks forward to sharing her experiences with conference participants



Alyssa Peteani, *Loan Officer*, Champlain Housing Trust

Alyssa Peteani is a Loan Officer with Champlain Housing Trust's Loan Program. CHT offers two loan products, including a Home Repair Loan Program, which provides affordable loan options with matching grant funds to eligible homeowners to complete health and safety repairs to their home. One benefit of the home repair loan program is having a staff person help navigate the bidding process and manage contract documents. Additionally, CHT offers a down payment loan towards the purchase of a new, Energy Star rated manufactured home. Prior to working with CHT's Loan Program, Alyssa served with Vermont Housing and Conservation Board's AmeriCorps program in the Shared Equity Program at CHT. Alyssa



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graduated from UVM in 2013 and is originally from Rutland, VT



Amy Picotte, Lakeshore Manager, VTDEC

Amy Picotte monitored Vermont lakes for over 20 years before jumping into terrestrial shoreland restoration and protection work while with the Vermont Department of Environmental Conservation. Her lake data and reporting inspired the 2014 Shoreland Protection Act and led to the creation of the Vermont Lake Wise Program. Through Lake Wise, Amy practices and promotes nature-based solutions along shorelands for wildlife and water quality protection. She also manages the Natural Shoreland Erosion Control Certification Program for contractors, offered annually in November.

Chris Rottler, Onsite Loan Program Manager, VTDEC

Chris is a Grants Management Specialist and the Program Lead for the Onsite Loan Program with the Department of Environmental Conservation for the State of Vermont. He went to law school in Washington, DC, but returned to Vermont to work on community development and environmental finance projects. He grew up in Burlington, and attended UVM, where he studied philosophy and cheered on the sports teams back in the day as Charlie Catamount.



Jared Willey, Co-owner, Advanced Onsite Services

Jared Willey is a wastewater treatment professional and co-owner of Advanced Onsite Services, Inc, a Vermont based innovative septic system service provider. Jared holds an A.A.S in Ecology and Environmental Technology from Paul Smith's college and has spent the last 20 years in water and wastewater operations, equipment sales, installation and service.



POST-EVENT SURVEY

CODE NAME: _____ (please enter your 2-digit birth month and last 4 digits of your phone number)

For each of the following topics, please indicate your level of knowledge after attending today's conference.

Topic	I know nothing about this	I know only a little about this	I have a working knowledge of this	I know this so well I could teach it
The potential impacts of a failing or failed septic system on clean water				
The potential impacts of a failing or failed septic system on human health				
How to design septic systems to protect natural shorelands				
How to site septic systems to protect natural shorelands				
Best practices to maintain septic systems				
Regulations for septic siting and maintenance				
Alternative septic designs for small lots near water				
How to recognize a failed or near-failing septic system				
How to get a septic system replaced				
Septic design options that are feasible on a small lot near water				
Available financing support for septic upgrades or replacement				



Please indicate to what extent you agree with the following intended outcomes given the resources and information provided today

Statement	N/A	Strongly Disagree	Disagree	Agree	Strongly Agree
I am inspired to talk to my neighbors about what I learned today					
I am more likely to properly maintain my septic on a regular basis					
I am more likely to upgrade the septic system on my property when it is needed					
I am more likely to replace the septic system on my property <i>before</i> any signs of failure to help protect human health and water quality					
I am more confident in advising others on best practices for septic maintenance					
I am more confident in advising homeowners or business owners about septic permitting rules					
I am more likely to share information about available financing options for septic design, installation and maintenance					
For Designers: I am more likely to include alternative systems in my septic design plans for small lots near water					
For Designers: I am more likely to incorporate natural shorelands principles in my septic design plans for small lots near water					

Please describe two ways you plan to apply what you learned at this conference

1.

2.

Is there any topic or information that you felt was missing from today's conference?

What do you most need to ensure a safe and functioning septic on your property? (Circle one)

- more information
- financial assistance
- direct consultations or technical assistance
- stricter laws
- other _____

Do you have any final advice for future septic solutions events (speakers, audience, topics, etc)? Please also share any other comments you have about the event.

Thank you for providing your feedback!

Please return survey to a WNRCD staff member for inclusion in door prize raffle.

VENDOR STAMPS (Each vendor stamp on your survey will get you an additional raffle ticket):

