

Septic Systems and Our Lakes, Ponds, and Rivers:

What's the Problem?

What Are Some 21st Century Solutions?

April 8, 2010

Town of Colchester
Rescue Squad Conference Room
781 Blakely Road
Colchester, Vermont

A volunteer committee of onsite wastewater professionals organized this one-day workshop exploring the link between onsite wastewater treatment systems (also known as "septic systems") and water quality in rivers, ponds, and lakes. The Town of Colchester hosted a morning lecture-style session with experts from the University of Rhode Island and Stone Environmental. A lunchtime panel discussion allowed participants to ask questions of a panel of area regulators, scientists, technology vendors, and water quality professionals. In the afternoon, the University experts were joined by local engineers, system designers, and installers to give participants a field tour of real-life installations of new onsite wastewater technology near the shores of Malletts Bay. Workshop attendees included members of lake association and watershed groups in Vermont and New York, onsite wastewater system designers and installers, engineers, water quality consultants, and local and state regulators.

Workshop Sessions

Morning (1)	Overview of Conventional and Advanced Onsite Wastewater Treatment Technologies (George Loomis, URI, New England Onsite Wastewater Training Center (NEOWTC))
Morning (2)	Onsite Treatment Technology, Operation/Maintenance, and Management (David Kalen, URI-NEOWTC)
Morning (3)	Challenges and Opportunities: Phosphorus Removal at the Site Scale in NY State (Bruce Douglas, Stone Environmental)
Lunch / Panel Discussion	<p>Perspectives on Onsite System Upgrades to Protect Water Quality</p> <ul style="list-style-type: none">• Susan Warren, Vermont Department of Environmental Conservation, Water Quality Division• Candace Balmer, RCAP Solutions• Bruce Douglas, P.E., Stone Environmental, Inc.• Victor Giard, VT Designer, VMG Environmental Solutions LLC and YOWA Vice-President• Gerry Kittle, Town of Colchester• Moderator: Todd Menees, P.E., P.H, Apple Hill Engineering
Afternoon	Tour of advanced onsite systems in Colchester lakeshore neighborhoods (Mills Point and Marble Island)

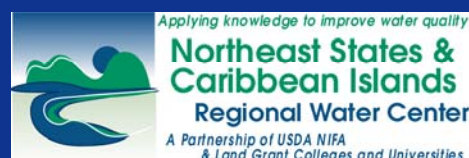
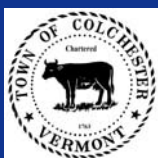
For this workshop's handouts and resources, contact:

Mary Clark, Orenco Systems Inc., 802-441-4400, mclark@orenco.com

Todd Menees, Apple Hill Engineering, 802-672-3782, applehill@vermontel.net

Amy Macrellis, Stone Environmental Inc., 802-229-1884, amacrellis@stone-env.com

Thanks
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Workshop
Sponsors:



Septic Systems Workshop

Field Tour Locations and Details



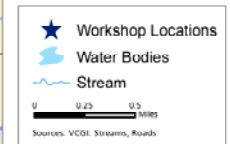
Field Tour Map

Septic Systems and Our Lakes, Ponds, and Streams

Workshop and Field Tour

April 8, 2010

Colchester, Vermont



STONE ENVIRONMENTAL INC
 575 Stone Center Way Phone: 802.225.4541
 Montpelier, Vermont Fax: 802.225.5417
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Site	Advanced Treatment System Type	Dispersal Type	Year Installed	Engineers	Design Flows/Bedrooms
A1	Cromaglass Model CA-5	Mound	2007	Champlain Consulting Engineers	280 GPD/2 Bedrooms
A2	Norweco Singular Bio-Kinetic Model 960-500	At Grade	2004	Trudell Consulting Engineers, Inc.	280 GPD/2 Bedrooms
A3	Septitech	Drip mound	2007	Douglas Water & Soil LTD	245 GPD/4 Bedrooms (Wastewater system only, holding tank for greywater)
A4	Orengo Advantex AX-100	Pressurized trenches	2005	Champlain Consulting Engineers	6,499 GPD/15 SFR, 4 condos, extra capacity
B1	PremierTech Ecoflo STB-650 Peat Biofilter	At-Grade 6' x 25'	2003	Champlain Consulting Engineers	300 GPD/2 Bedrooms
B2	Orengo Advantex AX-10 Textile Pretreatment	Bottomless Sand Filter Above Grade	2005-2006	Champlain Consulting Engineers	280 GPD/2 Bedrooms
B3	Orengo Advantex AX-20 Textile Pretreatment	At Grade	2006	Champlain Consulting Engineers	280 GPD/2 Bedrooms
B4	Septitech Model M400	Mound	2005	O'Leary-Burke Civil Associates, PLC	420 GPD/3 Bedrooms