

# SUSTAINABLE WATER FORUM



## 21<sup>st</sup> Century Water Management: Smart, Clean and Green

May 22, 2009

Waquoit Bay National Estuarine Research Reserve

9:00 am – 12:00 pm

Innovations in water management in the U.S. and internationally are offering the promise for more efficient and beneficial water, stormwater, and wastewater infrastructure. This informational session will look at water management in a larger context and include presentations describing the leading-edge of new practices from the perspectives of ecology, engineering, economics, and community development. The session will be relevant to municipal officials, engineers, state and local resource managers, water and wastewater commissioners, planners, DPW directors, and environmental groups. Information will be presented on:

- advancements in water-efficiency, reuse, and recovery of energy and nutrients
- the nexus of water and energy systems, and how energy use can be reduced
- new techniques in green infrastructure and integrated water management in buildings
- how the new smart, clean, and green infrastructure enhance public health, job creation and the quality of life in communities

8:00 am – 09:00 am      **Coffee and Sign-In**

9:00 am – 09:15 am      **Welcome and Opening Remarks**

*Becky Smith, Water Organizer and Diesel Coordinator, Clean Water Action*

*Tonna-Marie Rogers, Coastal Training Program Coordinator, Waquoit Bay Research Reserve*

09:15 am – 10:00 am      **Sustainable Water Management Approaches**

*Patrick Lucey, President, Aqua-Tex, British Columbia*

This presentation will describe Docksider Green in Victoria (the first LEED™ platinum community) and other integrated water management development projects in British Columbia, Canada. These urban and suburban developments are incorporating ecological restoration, and energy and heat recovery practices, and are improving air quality, learning in schools, property values, and other community benefits.

10:00 am – 10:40 am      **Case Studies: Water Efficiency, Stormwater and Wastewater Reuse in Foxboro, MA and N.Y. City**

*Ed Clerico, President, Alliance Environmental, LLC, New Jersey*

This presentation will describe wastewater and stormwater reuse systems built in Gillette Stadium in Foxboro and in the Solaire residential building in Battery Park in New York City. These projects dramatically reduce the use of potable water and discharge into sewers. Treated water is used for toilet flushing, cooling towers, landscaping, laundry, and community gardens.

10:40 am – 11:00 am      Coffee Break

11:00 am – 11:20 am      **Cities and Towns of the Future** - *Valerie Nelson, Director, Coalition for Alternative Wastewater Treatment*

This session will discuss emerging designs for cities and towns that reduce their water and energy “footprint” and enhance the quality of life in communities. Design principles include integrated systems, minimization of waste and capture of resources, and adaptation to local ecology.

11:20 am – 11:40 pm      **Potential Applications on Cape Cod** – *Bruce Douglas, Vice-President, Stone Environmental, Inc.*

Bruce Douglas will offer reflections on how the new approaches described may be applied to Cape Cod.

11:40 pm - 12:00 pm      **Q & A/ Group Discussion**

12:00 pm                      **Adjourn**

**12:00 – 1:00 pm              Networking Lunch (provided)**

Please register online at [www.waquoitbayreserve.org](http://www.waquoitbayreserve.org). For more information contact Tonna-Marie Rogers at 508-457-0495 x 110.

Co-sponsored by:      *Clean Water Action and Clean Water Fund  
Coalition for Alternative Wastewater Treatment  
Waquoit Bay National Estuarine Research Reserve*

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#### **ABOUT THE SPEAKERS**

##### **Bruce Douglas, Vice President, Stone Environmental, Inc.**

Bruce Douglas leads the Water Resources Management group at Stone Environmental, Inc, and is an internationally respected soil scientist, hydrogeologist, and environmental engineer. Bruce has 28 years of experience in integrated water management at the project, municipal, and regional levels. He has led numerous projects involving field studies at various scales, modeling, spatial analysis, and engineering to characterize, analyze, and reduce the impacts of nutrients, pathogens, and pesticides on water quality. Bruce has played a lead role in municipal wastewater feasibility studies and facilities planning projects in Vermont, Massachusetts, Rhode Island, and California. He has provided technical training in alternative wastewater management strategies to professionals in Indonesia and China. Bruce holds an M.S. in Plant and Soil Science from the University of Vermont; a B.S. in Hydrology from the University of New Hampshire; and he is a Professional Engineer licensed in the state of Vermont.

##### **Edward A. Clerico, President, Alliance Environmental LLG, Hillsborough, NJ**

Ed Clerico is a licensed professional engineer and licensed wastewater operator in NY, NJ and PA and is an accredited LEED professional. He holds a B.S. and M.S. in Bio-Ag Engineering from Rutgers University. He was the founder and president of Applied Water Management, Inc. before holding executive roles with American Water as Technical Development Director and VP Strategy. Presently he operates his own consulting business, Alliance Environmental, and focuses on Green Building initiatives that involve water reuse and integrated water resource management.

##### **Patrick Lucey, President, Aqua-Tex Scientific Consulting Ltd. & Fidelis Resource Group Inc.**

Mr. Lucey is a senior aquatic ecologist with a background in resource management and political science. His specialties include managing water resources so that they add value to development projects, and demonstrating how maintenance and enhancement of ecological function can provide cost-savings on infrastructure and result in a healthier environment. He has successfully planned, designed and constructed rainwater projects that include business and residential developments and several LEED™ green buildings. He is currently on the design team for Dockside Green in Victoria (the first LEED™ platinum community). Mr. Lucey also supervises graduate students at the University of BC, Royal Roads University and the University of Victoria. He is a Special Advisor to the British Columbia Government on Water Policy, the Climate Change Action Plan and Green Cities Initiative programs.

##### **Valerie Nelson, Director, Coalition for Alternative Wastewater Treatment, Gloucester, MA**

Valerie Nelson directs the Coalition for Alternative Wastewater Treatment, which is a national alliance of advocates for and experts in decentralized water, wastewater, and stormwater treatment and management. Dr. Nelson is the Chair of the Decentralized Systems Advisory Committee at the Water Environment Research Foundation and is a program co-chair for the 2009 conference, Cities and Villages of the Future in Beijing, China. She served two terms on the City Council in Gloucester, Massachusetts. She was a Lecturer and Visiting Assistant Professor at the Kennedy School of Government and M.I.T.