

2011 Lakes Congress Session Descriptions

9:10 – 9:45 A.M. PLENARY SESSION

New Hampshire's Lakes: Unique features, challenging problems and creative solutions

Dr. James F. Haney, Ph.D., Professor of Zoology, University of New Hampshire

The lakes of New Hampshire are one of the state's most important and attractive natural resources. The combined effect of their physical characteristics, such as size, depth, as well as the climate of the Northeast, makes our lakes both ideal for recreation, but also sensitive to the problems of eutrophication and outbreaks of cyanobacteria. A database of the occurrence of toxic cyanobacteria for a broad range of lakes throughout the state has allowed for the development of empirical models indicating the critical levels of nutrients that the lakes can tolerate without excessive growth of phytoplankton. Impacts of a growing population and a changing climate demand attention to the problems of lake water quality and the potential threats to the health of the lakes and the public by toxic cyanobacteria.

10:00 – 10:50 A.M. CONCURRENT SESSION I

A. Lessons Learned: Rebuilding I-93 while protecting water quality

Cobbett's Pond Improvement Association; Canobie Lake Protective Association; and the New Hampshire Department of Transportation

Interstate 93 is one of the state's principal transportation arteries and is critical to the economic vitality of the state, region and local communities. The New Hampshire Department of Transportation is currently working to widen a 20-mile segment of I-93 between Exit 1 and 5, from the Massachusetts stateline to Manchester, New Hampshire. In Windham, at the I-93 Exit 3 interchange, roadway reconstruction and expansion activities have resulted in some unexpected stormwater runoff management problems which have impacted nearby waterbodies. In this session, you'll learn how two lake associations, the Cobbett's Pond Improvement Association and the Canobie Lake Protective Association, have formed positive working relationships with each other, the New Hampshire Department of Transportation, and the New Hampshire Department of Environmental Services to address and minimize stormwater runoff and other pollutant concerns associated with the project. If you have a roadway project coming to your watershed, you won't want to miss this session.

B. Top 10 Ways to Get Your Association into Legal Trouble

Michael DeLucia, Trustee, Lindsay Foundation

This session will focus on the 10 key mistakes that New Hampshire nonprofit associations have made in managing their finances and in governing their associations, often with disastrous consequences. These "traps for the unwary" include borrowing against their endowments, failing to understand compliance issues, inattention to ethical issues, and ineffective governance. This session will also examine the increasing scrutiny of nonprofit associations by the media, government regulators, and donors. Finally, the session will examine the pervasive issue of fraud in the nonprofit sector and practical ways that nonprofit associations can be proactive in preventing fraud and embezzlement.

C. Ecology of Cyanobacteria in NH's Lakes, Monitoring and Detection

Amanda Lee Murby, Dr. James F. Haney, Shane Bradt, and Jeff Schloss, University of New Hampshire

The incidence of cyanobacteria in lakes are a growing public health concern due to the associated toxicity (cyanotoxins) and detrimental effects these organisms may have on humans, animals, and wildlife. Though there are no federal regulations on the allowable limits of cyano-toxins in drinking water and recreational lakes, a few states have initiated monitoring to track cyanobacteria in order to understand their occurrence and toxicity at a local level. There are many questions on the ecology, toxicology and monitoring of cyanobacteria in nature. This session will highlight the "Citizen-based Cyanobacteria Monitoring Program" initiated by public interest and trialed by the Center for Freshwater Biology at the University of New Hampshire to test techniques in monitoring cyanobacteria and cyano-toxins.

A. Watershed Restoration: A plan for Cobbett's Pond

Bob Hartzel, Associate, Geosyntec Consultants, Inc. and Derek Monson, Cobbett's Pond Improvement Association

Although Cobbett's Pond enjoyed the state's highest lake quality designation in the late 1980s, twenty years later it was on the state's List of Impaired Water Bodies for low dissolved oxygen, elevated phosphorus, and nuisance cyanobacteria. This presentation will discuss the findings of a Section 319 grant-funded project to develop a comprehensive Watershed Restoration Plan for Cobbett's Pond. This study determined that Cobbett's Pond should be characterized as a mesotrophic lake, a significant upgrade from the eutrophic classification that the pond had been given based on earlier studies. However, the study also determined that the pond's phosphorus concentrations have increased at an alarming rate over the past 20 years, resulting in water quality impairments such as increasingly frequent cyanobacteria blooms.

B. The Pros and Cons of Forming Village Districts

David Maudsley, Bob Anderson, Ned Lizotte and Carol Kenneson, Executive Board, New Hampshire Association of Village Districts

This will be a panel discussion about the pros and cons of forming village districts as opposed to a private association for the protection of water resources and providing services. This will include a discussion of the procedures involved in complying with RSA 52 (the statute governing village districts), voting requirements, the budget process and financial reporting to the Department of Revenue Administration, government transparency and the Right to Know Law, and relationships with the parent municipality.

C. A Focus on Native Aquatic Plants: Why it is important to like them and live with them

Amy Smagula, Limnologist/Exotic Species Coordinator, New Hampshire Department of Environmental Services

Often when we talk about "aquatic plants" an emphasis is placed on monitoring for and finding non-native and invasive plant species before they take over a waterbody. The more common native vegetation is all too often ignored, misunderstood or even abhorred, depending on what an individual deems as their desired use of a waterbody. Plants are great to a fisherman or naturalist, but to a person that uses a waterbody for swimming or pleasure-boating these plants may be less than desirable. This session will focus on the benefits, functional values, quirks, management considerations and do's and don'ts of native aquatic plants in New Hampshire's waterbodies.

A. Innovative Landscaping to Protect Water Quality: Reigning in runoff

Jeff Schloss, Extension Professor in Biological Sciences and Water Resources Specialist, UNH Cooperative Extension

In this indoor/outdoor session, learn about how innovative landscaping techniques can enhance and protect water quality by reducing surface runoff and nutrient loading to water resources. A walking tour of the Castleton grounds along the shoreline of Cobbett's Pond will highlight some of the basic principles of innovative lake-friendly landscaping techniques. Bring a rain coat or umbrella (if rain is predicted) and your walking shoes.

B. Watershed Protection Ordinances: Will it work for your lake?

Andy Chapman, Clean Lakes Program, New Hampshire Department of Environmental Services; Bob Craycraft, Town of New Durham Planning Board; Derek Monson, Cobbett's Pond Improvement Association; Brian Sullivan, City of Franklin

Watershed Protection Ordinances and Watershed Protection Districts provide a mechanism to better manage watershed land use and protect water resources. During this session, methods for developing and gaining support and approval will be explored. The benefits and drawbacks of several watershed protection ordinances will be discussed by a panel of watershed representatives with experience in developing such ordinances. This will be an interactive discussion; please prepare by bringing your watershed ordinance questions or email them, in advance, to andrew.chapman@des.nh.gov.

C. Fond of Our Lawns: Changing homeowner's lawn care behavior to reduce nutrient runoff

Julia Peterson, Extension Specialist, NH Sea Grant & UNH Cooperative Extension; Brian Eisenhauer, Director of Office of Sustainability, Plymouth State University

Is your community, watershed or municipal group interested in conducting outreach about lawn care and water quality? This session will provide you with the latest water quality based recommendations for turf nutrient management as well as the latest findings about do-it-yourselfers' practices, beliefs and attitudes about lawn care. We'll discuss what the plant and social science findings mean for conducting effective lawn care outreach and how to incorporate them into your own campaigns.

D. Boat Trip: Lake Sampling and Plant Monitoring Session on Cobbett's Pond

Amy Smagula, Limnologist/Exotic Species Coordinator, New Hampshire Department of Environmental Services

While you are enjoying the lakeside conference facilities at this year's Lakes Congress, why not spend some time on the water getting your hands wet (and maybe mucky!) while refreshing both your water quality sampling skills and your plant identification skills? This on-the-water session will start with an overview of both equipment and methods used to sample various parameters common in routine lake assessment surveys including Kemmerer bottles, Secchi disks, integrated sampler tubes, plankton nets and more. The second half of this session will involve an overview of plant monitoring methods and a review of common native plants and key invasive aquatic plants in Cobbett's Pond, with extrapolation to your own waterbody.

EXHIBITOR PRESENTATION SESSIONS

2:30 – 3:00 P.M. Concurrent Exhibitor Presentation Session

A. Advances in Wastewater Technology

Gary Spaulding, President & Owner, Wastewater Alternatives, Inc.

A discussion of new septic treatment technology in New Hampshire, including a review of research on the impact of aeration of effluent and soil in septic systems will be presented. Discussion will cover aerated and membrane filtration systems, and will address both new installations and methods for leachfield recovery.

B. Preserving the Environment of Lakefront Properties While Solving Wastewater Problems

Dan Ottenheimer, President, Oakson, Inc.

This session will feature Oakson's environmentally-beneficial products geared specifically toward preserving the integrity of sensitive areas, including lakefront property, wooded sites, wetlands and other protected areas. Oakson's Perc-Rite Drip Dispersal is an innovative, non-invasive technology which is ideal for sites that need wastewater dispersal.

C. Watershed Management and Lake Restoration

Bill Arcieri, Senior Water Resource Scientist, Vanasse Hangen Brustlin, Inc.

Bill will discuss projects that VHB, an engineering/environmental company, has conducted relative to watershed management, lake restoration, and pollutant loading reductions.

D. Composting Waste Treatment and Graywater Filtering Systems

Joseph Ducharme, General Manager, Clivus New England, Inc.

Clivus New England, Inc., specializes in cost-effective solutions for human waste and graywater reuse. They can help with nitrogen-sensitive sites, remedial systems, blackwater separation, and more. This session will highlight their waste treatment and graywater filtering systems which have been used in a wide range of applications, from heavy use in public facilities, to commercial and residential properties.

Attend the Lakes Congress and enter the raffle to win a kayak!