

**2011 Northeast Regional Cyanobacteria Workshop
Speaker Biographies**

Ken Wagner, Water Resource Services

Dr. Wagner holds a B.A. in Environmental Biology from Dartmouth College and M.S. and Ph.D. degrees in Natural Resource Management from Cornell University. He had four years of experience with the New Jersey Department of Environmental Protection between his undergraduate and graduate degree programs. He has since gained 25 years of experience with northeastern US consulting firms, working on a variety of water resources assessment and management projects. He recently started Water Resource Services, a small company with a focus on water supply protection and lake management consulting. He is a former President of the North American Lake Management Society and the current Editor in Chief of Lake and Reservoir Management, a peer-reviewed journal.

**Dr. Greg Boyer, State University of New York College of Environmental Science and Forestry;
Director, Great Lakes Research Consortium**

Dr. Boyer received his B.A. Degree in Biochemistry from the University of California at Berkeley and his Ph.D. degree in Biochemistry from the University of Wisconsin. After postdoctoral fellowships at the Plant Research Labs at Michigan State University and in the Department of Oceanography at the University of British Columbia, he joined the Faculty of Chemistry at SUNY-ESF in 1985. Dr. Boyer's expertise line in the area of biologically active natural products produced by algae and he has more than 35 years experience working with toxins, hormones and siderophores produced by marine and freshwater algae. He was director of NOAA's MERHAB-Lower Great Lakes project to develop a Tier-based Monitoring for Toxic Cyanobacteria in the Lower Great Lakes", serves as a rapid response laboratory for cyanobacterial toxins for NOAA the Centers for Disease Control, and laboratories from around the globe. He is also the current director of New York's Great Lakes Research Consortium. The NY-GLRC consists of 18 New York Universities and nine Canadian Universities, almost 400 scientists in total, working on all aspects of Great Lakes Science, education and outreach. He has served as chief scientist on more than two dozen research cruises on the Great Lakes, is the Great Lakes Co-Chair of the Science Advisory Council for New York Oceans and Great Lakes Ecosystem Conservation Council, member of New York's Great Lakes Basin Advisory Council, Member of the IJC's Council of Great Lakes Research Managers, and an active advocate for Great Lakes protection, outreach and public education.

Dr. James Haney, University of New Hampshire

Jim Haney is a Professor in the Department of Biological Sciences at the University of New Hampshire. There he teaches courses in ecology, limnology, lake management, and stream ecology. He is currently a Faculty Fellow in Biodiversity in the Sustainability Academy at UNH. He is also a member of the Lakes Management Advisory Committee for the State of NH and on the Board of Directors of the NH Lakes Association.

Dr. Judy Westrick, Lake Superior State University

The occurrence of cyanobacterial blooms in marine, brackish, and fresh water is a worldwide phenomenon. One third of the fifty genera of freshwater cyanobacteria are capable of producing toxins. Recognizing the potential health risk, Canada, the United Kingdom, Australia, and many European countries have established guidelines for the level of cyanobacterial toxins permissible in drinking water. The United States has acknowledged cyanotoxins as a potential health risk by placing them on the United States Environmental Protection Agency (US EPA) drinking water Contaminant Candidate List (CCL). Cyanotoxins have been on a CCL since 1998. Recent research performed by National Oceanic and Atmospheric Administration (NOAA), US EPA, United States Geological Survey (USGS), United States Department of Agriculture (USDA), and academic institutions show nationwide impairment of freshwater sources by toxic algae.

Over the last ten years, the drinking water division of USEPA has promoted research on cyanotoxins in the following areas: 1) determining the occurrence, removal and/or inactivation efficiency of cyanotoxins in the drinking water industry; 2) toxicity of cyanotoxins; and 3) developing standard analytical methods for the priority algal toxins. Ms. Westrick has organized and served on expert panels, reviewed grants, written reviews, edited a special edition of *Toxicon* and performed research in these areas. Most of her current research has focused on performing occurrence studies, determining cyanotoxin susceptibility to drinking water treatment processes, developing analytical methodologies, and validating commercial analytical products. She has developed a rapid chromatographic method for the CCL priority cyanotoxins that has been successfully adapted to photodiode array, mass spectrometer, and tandem mass spectrometer detection systems. A recent US EPA grant has allowed her to monitor cyanotoxins in both intake and finished waters at several drinking water facilities in at-risk source waters on the Great Lakes. This project included monitoring drinking waters from four of the five Great Lakes. Ms. Westrick's presentation will be an overview of her research and its impact on national and regional human and environmental health.

Angela Shambaugh, Vermont Department of Environmental Conservation

Ms. Shambaugh has over 20 years of experience on Lake Champlain in the field of algal ecology and water quality. As research staff at the University of Vermont, she participated in development of the Champlain cyanobacteria monitoring program. Currently, in the Vermont Department of Environmental Conservation (DEC) as part of the Lake Champlain Long-Term Water Quality and Biological Monitoring Program, Ms. Shambaugh provides regular updates from around the lake for the annual cyanobacteria monitoring effort. She is the DEC's primary contact for cyanobacteria concerns and works closely with the Water Supply Division of DEC and the Vermont Department of Health to respond to blooms around the state. Ms. Shambaugh holds a B.A. and a Masters degree in Botany.

Linda Boccuzzo, Vermont Department of Health

Ms. Boccuzzo has worked as the Risk Coordinator in the Toxicology and Risk Assessment Program for the past four years. The Program works primarily with the Department of Environmental Conservation and the Agency of Agriculture to evaluate, develop, and establish state-wide policies regarding chemical exposure. Ms. Boccuzzo works with private citizens and other stakeholders to explain and minimize chemical exposures. She also works closely with the state's Radiological Response Program. She is also the Health Department's primary contact for public health cyanobacterial issues. She coordinates public health guidance for cyanotoxins and works with stakeholders to ensure public health concerns are addressed. Ms. Boccuzzo holds a B.S. in Chemistry and Biology and a Masters degree in Plant and Soil Sciences.

Vanessa Yandell, Massachusetts Department of Public Health Bureau of Environmental Health

Vanessa Yandell is a graduate of the University of New Hampshire with a B.S. in Biology. She is currently working toward an M.S. in Environmental Science at the University of Massachusetts Boston. Ms. Yandell joined MDPH in 2006 as an Environmental Health Inspector for the Bathing Beaches Project and in 2008 became the Project Coordinator for the Statewide Surveillance of Health Concerns and Toxic Algae Blooms Project. She has held a Registered Sanitarian license since 2007.

Maureen R. McClelland, U.S. EPA Region I

Maureen McClelland specializes in risk assessment specifically that of human health. She obtained her undergraduate degree from Regis College, Wellesley, Massachusetts and her graduate degree from Boston University, Medical School, School of Public Health, Boston Massachusetts.

Ms. McClelland has also completed work in Quantitative Health Risk Assessment at the Massachusetts Institute of Technology, Cambridge, Massachusetts. She was appointed to the Harvard School of Public Health as a Visiting Scientist in 1995 and has served in that capacity for the past 10 years.

She is one of U.S. Environmental Protection Agency's Region I toxicologists and the Sr. Public Health Advisor for the Drinking Water Program. As such, she provides the outreach framework to Federal, State agencies, industry and the general public on issues related to risk assessment and toxicology. Ms McClelland serves on several national workgroups and makes decisions and recommendations on issues of Regional and National significance that serve as models for improved Agency wide policy and operations.

Tom Faber, U.S. EPA Region I:

Tom Faber works at the EPA New England Regional Laboratory in North Chelmsford, Massachusetts as a Water Quality Environmental Engineer. He conducts and coordinates ambient water quality monitoring studies. He has been involved in water quality monitoring in the Mystic and Charles Rivers for over a decade. He also provides technical support and assistance to some of the New England states and local watershed associations. He is involved in sampling and is the regional coordinator for EPA's National River and Stream Assessment and EPA's first National Wetland Condition Assessment. He has work for the EPA for 20 years. He graduated in Engineering from the University of Massachusetts in Lowell in 1991.

Dr. Keith Loftin, USGS Kansas Water Science Center

Keith Loftin is a research chemist and environmental engineer for the US Geological Survey's Organic Geochemistry Research Laboratory at the Kansas Water Science Center. Dr. Loftin's research activities include analytical methods development, occurrence, fate, effects, transport, and treatment of emerging contaminants, pesticides, and algal toxins.

Amanda Lee Murby, University of New Hampshire

Amanda studied at the University of New Hampshire, earning her B.S. in Marine and Freshwater Biology (2006) and M.S. in Zoology (2009). Under the guidance of her advisor, Dr. Jim Haney, Amanda continues her studies as a Ph.D. student at UNH, expanding her knowledge on the ecology and toxicology of cyanobacteria in lakes. Amanda also assists in facilitating the UNH, Center for Freshwater Biology (cfb.unh.edu) and has taught a variety of labs and field-courses through the university. Topical research interests include ecology; zoology; limnology and other aquatic sciences; cyanobacteria; toxicology and biotoxins; foodwebs and public health.

Elizabeth Herron, University of Rhode Island Cooperative Extension

Elizabeth Herron is the URI Watershed Watch Program Coordinator and has been with URI Watershed Watch for almost 20 years, helping build the program to more than 350 volunteers assessing lakes, ponds, streams, rivers, salt ponds and marine waters throughout Rhode Island (RI) and southeastern Connecticut. The RI Department of Environmental Management, researchers and environmental consultants have come to rely on this comprehensive and long-term data set. Elizabeth works regionally and nationally to help build capacity of volunteer monitoring groups and watershed organizations. She has a B.S. in Zoology (specialty in marine science), and a M.A. in Marine Affairs, both from the University of Rhode Island.