



N.H. Department of Environmental Services Drinking Water Source Protection Conference

Thursday, May 16, 2019 (8:30 am – 4:00 pm)
Grappone Conference Center
70 Constitution Avenue,
Concord, NH 03301

In collaboration with
American Ground Water Trust
Concord, New Hampshire
A 501(c)(3) non-profit organization



5.0 Technical Credit Hours for NH Water Works Operators

AGENDA

- 8:30 – 8:45 AM **WELCOME, CONFERENCE OVERVIEW**
 - ◆ Pierce Rigrod, Supervisor, Drinking Water and Groundwater Bureau, NHDES
- 8:45 – 9:00 AM **OPENING REMARKS**
 - ◆ Robert R. Scott, Commissioner, NHDES
- 9:00: – 9:15 AM **ANNUAL DRINKING WATER SOURCE PROTECTION AND SUSTAINABILITY AWARDS**
 - ◆ Robert R. Scott, Commissioner, NHDES
- 9:15 – 9:30 AM **NHDES SOURCE WATER PROTECTION YEAR IN REVIEW**
 - ◆ Pierce Rigrod, Supervisor, Drinking Water and Groundwater Bureau, NHDES
- 9:30 – 10:00 AM **LEGISLATIVE AND POLICY UPDATES**
 - ◆ Sarah Pillsbury, Administrator, Drinking Water and Groundwater Bureau, NHDES
- 10:00 – 10:45 AM **UNDERSTANDING THE FARM BILL'S FOCUS ON PROTECTING DRINKING WATER**
 - ◆ Rick Ellsmore, USDA/NRCS NH State Conservationist. The US Farm Bill establishes funding for the USDA's Natural Resources Conservation Service to provide voluntary conservation efforts on private lands, support agriculture, improve water quality/quantity, and permanently protect valuable farmland and wetlands. The new 2019 Farm Bill includes language to identify and target additional incentives for practices that support source water protection.
- 10:45 – 11:15 AM **BREAK / REFRESHMENTS**

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11:15 – 12:00 PM BREAKOUT SESSION

Surface and Groundwater	Land Conservation: 2018 in Review and Issue Roundtable	Innovation and Resources	National Source Protection Priorities
Statewide Private Well Sampling Initiative	The Best Source Water Protection There Is: source water protection grants from the NH Drinking Water and Groundwater Trust Fund	Source Water Protection Activities Under The New US EPA MS4 Permit	US EPA Region 1 Source Protection Activities
Five-hundred private wells are being sampled for an extensive list of analytes including over one-hundred pesticides, perchlorate, PFAS, inorganics, metals, VOCs, 1,4-dioxane and radionuclides. A summary of the results to date will be presented along a summary of previous sampling initiatives. Efforts to align private well sampling with a NH Health and Human Services' biomonitoring program will also be discussed.	The NH Drinking Water and Groundwater Trust Fund is the only source of funding in NH focused on the permanent protection of water supply lands. The 2018 grant round provided \$2.4 million to protect 4,744 acres of water supply lands. This presentation will cover the rationale for protecting water supply land, how land is protected, potential partners, and how the Trust Fund's grant program will work in 2019. Eligibility, grant conditions and requirements, Trust Fund's priorities, and what is the timetable for this year's program?	This session will cover the 2017 New Hampshire Small Municipal Separate Storm Sewer System General Permit as it relates to drinking water source protection, as well as how the permit more generally will protect water quality in the state of New Hampshire. Of the many permit requirements, certain provisions of the Small MS4 permit are intended to ensure that municipal stormwater discharges, stormwater management practices, and installed stormwater controls do not compromise public water supplies.	EPA Region 1 has been a national partner in protecting drinking water resources since the passage of the Safe Drinking Water Act in 1974. EPA has long advocated for a multi-barrier approach to protect drinking water and public health, starting with source water protection. At the national level, EPA provides leadership on source water protection in many ways including its important role in the national Source Water Collaborative and funding workshops in the states. At the regional level, EPA supports states in a variety of ways which include conducting annual workshops, assisting with spill response training/exercises, participating in state and watershed based source water collaboratives, as well as funding watershed protection. This session will summarize EPA's current source water protection activities and provide examples of innovative source water protection projects.
Brandon Kernen, Manager, NHDES Hydrology and Conservation	Paul Susca, Administrator, Planning, Protection, & Assistance, NHDES	Suzanne Warner, US EPA Region 1 NPDES Permit Writer	Jane Downing, Chief, Drinking Water, Grants, Tribal, and Assistance Branch, US EPA Region 1

12:00 – 1:00 PM LUNCH

1:00 - 3:30 PM AFTERNOON SESSIONS—CONCURRENT TRACKS

Surface and Groundwater	Land Conservation	Innovation and Resources	New England Source Protection: State Priorities
1:00 – 1:45 PM			
The Salmon Falls River Emergency Response Full Scale Exercise	Gorham's Ice Gulch Conservation Project	The East Pond Alum Treatment: a Multi-Stakeholder Approach to Lake Management	New England Source Protection: State Priorities
The Salmon Falls River forms the boundary between southern Maine and New Hampshire, and is the source of public drinking water for Berwick, ME and Somersworth, NH. In 2018 Maine Rural Water Association and Granite State Rural Water Association partnered with the York County Emergency Management Association, the Berwick Water Department, the Somersworth Water Department, emergency responders, and state agencies to conduct an emergency response full scale exercise. The exercise focused on the response to a chemical spill in the river. Goals of the exercise included improving response time, strategy, and communication. This session will summarize the challenges, lessons learned and benefits of the exercise.	You can manage timber AND protect drinking water? You sure can. The Gorham Town Forest managed primarily to ensure clean drinking water, sustainable timber harvesting, outdoor recreational and educational opportunities, and habitat protection. The Town Forest contains the intakes of two watersheds, as well as 19.2 miles of riparian streams within 5 miles of the intakes. These valuable water assets are just one of the benefits of the Forest: visitors can hike the Ice Gulch Path, revenue from timber harvests supported the construction Town Hall, and students have mapped forest inventory plots. Within the year, the Gorham Town Forest will expand by acquiring 2,005 acres, as well as permanently protect the resulting 6,000 acres through conservation restrictions.	The largest alum treatment to date in New England was conducted on East Pond (Smithfield, ME) in two phases in 2018. The lake has a history of recurrent algal blooms over the past 20+ years, and was a prime candidate for an alum treatment because there is a significant amount of phosphorus available to algae from lake sediments, not from phosphorus entering the lake from the watershed. In total, 260 ha of lake sediment were treated with Al(OH) ₃ for a total cost of \$1.1M. After the first phase of treatment, East Pond had excellent water clarity. In summer 2019, we will monitor weekly to understand the evolution of the ecological system in the second year.	A recent survey conducted by the Association of State of Drinking Water Administrators (ASDWA) noted nutrients/harmful cyanobacteria blooms (HBCs), spills/releases and perfluorinated compounds (PFAS) as the top drinking water contaminant concerns. This session will feature state source protection managers in New England and priorities, policies and actions being taken in their state to protect drinking water resources.
Susan Breau, Maine Rural Water Association Justin Shaw, Granite State Rural Water Association	Mark Shea, Town Manager, Michael Waddell, Chair of the Selectboard; Paula Bellemore, NH LCHIP	Danielle Wain, Lake Science Director, 7 Lakes Alliance	State Source Protection Managers from RI, ME, VT, CT, NH and US EPA Region 1; Facilitated by NEIWPC

Surface and Groundwater	Land Conservation	Innovation and Resources	New England Source Protection: State Priorities
1:45 - 2:30 PM			
“A to Z” Efforts to Protect Lake Massabesic from Aquatic Plant Management to Zoning	Parker Farms Conservation Easement	Promoting Water Consumption in NH Schools, an Opportunity for Partnership to Promote Health and Source Protection	Roundtable to Discuss Regional Source Protection Priorities – Continued from 1:00 pm
This presentation will highlight recent source water protection efforts by Manchester Water Works, including proposed regulatory revisions to strengthen the Lake Massabesic Watershed Protection Overlay District, invasive aquatic plant assessment and management, and public education/outreach efforts.	This presentation will highlight the Parker Farms Forest Conservation Easement, one of the last undeveloped parcels of land on Lake Massabesic not owned by Manchester Water Works (MWW). Lake Massabesic is the source of drinking water for the City of Manchester and surrounding towns. Conserving this parcel of land was a joint effort of the Society for the Protection of New Hampshire Forests and MWW.	Drinking safe water has many health benefits, and is a preventive measure against chronic diseases including cancer, dental caries, and diabetes. Ensuring safe water requires source water protection. Hear about the work that the NH DHHS Healthy Lives Program has been doing to promote consumption of water in schools throughout the state, and about how you might be able to partner with NH DHHS in this effort to highlight the work that you’re doing to ensure safe water.	Continued discussion of New England source protection priorities, policies and actions being taken in New England state to protect drinking water resources.
Bob Hartzel, CLM, CPESC Comprehensive Environmental Inc.	Brian Hotz, Society for the Protection of New Hampshire Forests John O’Neil, Manchester Water Works	Scot Foster, Whitney Hammond, NH DHHS, Division of Public Health Services, NH Healthy Lives Section	State Source Protection Priorities: Rhode Island, Maine, Vermont, Connecticut and US EPA Region 1 (invited); Facilitated by the New England Interstate Water Pollution Control Council (NEIWPCC)
2:30-2:45 PM BREAK			
Surface and Groundwater	Land Conservation	Innovation and Resources	New Hampshire’s Source Protection Priorities (Program Strategy Updates)
Long-Term Water Source Planning: Assessing Source Vulnerability and Planning for Small- and Medium-Sized Community Water Systems	Great Grants! Funding Opportunities from NHDES to Make your Source Protection Projects Happen.	Who’s at the Party? Risk assessments using cyanobacterial population size structure analysis	Working to Update New Hampshire’s Source Water Protection Strategy
This presentation will discuss methods for assessing vulnerability of a community’s water source before issues arise, how to evaluate for alternate supplies, and developing contingency plans to address issues that may arise. Several case studies will be presented, along with a discussion of how these emergencies might have been prevented with long-term planning.	This session will highlight funding opportunities through NHDES’s Local Source Water Protection and Cyanotoxin Monitoring and Training Grant Programs. NHDES staff will provide information on what types of projects are eligible for these grants, details on eligibility requirements, examples of successful projects, and will be on-hand to answer questions.	This session will discuss an “early warning system” to quickly estimate the potential for bloom development and increases in microcystin concentrations. A simple and easy to use risk assessment tool has been developed for use by water suppliers. The most critical steps rely upon identification and abundance using light microscopy, followed by pigment analysis using fluorometry. A new approach can help public water systems determine the “next steps” in a tiered approach to managing cyanobacteria.	Come listen to the priorities and actions being developed as part of NHDES’s source water protection strategy effort. Details concerning on-going work of an Advisory Committee and Work Groups focused on data gathering/analysis, partnerships, policy/regulations and preparedness will be presented for discussion and an opportunity to provide feedback.
Jon Warzocha, P.G. CEO/Senior Hydrogeologist Horizons Engineering, Inc.	Andrew Madison, Source Protection Coordinator, NHDES	Nancy Leland, Executive Director, Lim-Tex, Inc.	Pierce Rigrod, Supervisor, Source Protection Program, NHDES
3:30 - 4:00 PM EVALUATIONS & NETWORKING			