

NH Water Works Association Newsletter

Issue 114

September 2017

NHWWA

Construction Field Day 2017

NHWWA's 19th annual Construction Day bus trip headed to the seacoast this year. The City of Dover had a number of projects in the works and the full bus made stops at eight of them. Thanks to Bill Boulanger, Utilities Superintendent for Dover, as well as Tom Page and Mike Unger from Underwood Engineers, Inc., for their time, effort and presentations that made the day a success.

The projects visited included a variety of storm water management installations designed to improve water quality in urban watersheds. Dover was recognized for its use of Low Impact development, Green Infrastructure, retrofits, stream restoration and community outreach in improving the Berry Brook watershed.

The bus also stopped at a 1,200 gpm water plant under construction. The new structure replaces the original plant from the 1950's that treats water from two wells. Three 12 foot diameter tanks to house Greensand Plus filter media had been installed and the building is being erected around them.

Continued on page 2



Tom Page from Underwood Engineers, explains the Lowell Avenue Water Treatment Plant project during the 2017 Construction Field Day in Dover, NH.

NH Drinking Water Expo & Trade Show

Thursday, October 26, 2017, Concord, NH

This year's NH Drinking Water Expo & Trade Show will include our first ever **Hydrant Hysteria**. Teams will compete to see who can assemble a hydrant the fastest. The winning team will go on to compete at the 2018 NEWWA Spring Joint Regional Conference & Exhibition in Worcester. Also new to this year's show will be a **complimentary lunch** provided for all attendees in the exhibit hall.

The popular "Trade Show Passport" will continue, providing attendees the opportunity to enter to win raffle prizes by filling their "Passport" with logo stickers at exhibitor booths.

The trade show will offer 18 quality seminars on drinking water topics, covering subjects from emerging contaminants to the future of leak detection. Approximately 60 exhibitors providing drinking water products and services will be set up in the lobby and exhibit hall.

Exhibit Booths

If you are interested in renting a booth at the show you can find more information on our website at www.nhwwa.org or by contacting Patricia Beavers, Trade Show/Expo Coordinator at beaves@sover.net, (802)763-3937.

Sponsorship Opportunities

Sponsorship opportunities include *Seminar Room Sponsors*, *Food and Beverage Sponsors* and *General Sponsors*. Please contact NHWWA for more information, info@nhwwa.org or (603) 415-3959.

Attendees

For the registration fee of \$75, attendees have the opportunity to earn up to 5 TCHs. The fee also includes morning coffee and lunch. Registrations can be completed through our website at www.nhwwa.org.

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Report Card on Infrastructure—ASCE Releases its Report

by Stephen Del Deo

The American Society of Civil Engineers (ASCE) recently released its 2017 “Report Card” on the condition of America’s infrastructure. Report cards are issued every four years. Overall, the nation’s infrastructure condition was rated D+, while drinking water nationwide was given a D.

While New Hampshire’s drinking water infrastructure earned a C-, slightly higher than the national grade, much work still needs to be done.

It is very important to begin here by emphasizing that NH’s grade is in no way a poor reflection on our dedicated public drinking water community – its operators, managers, directors, engineers, and other personnel whose experience, expertise, and hearts and souls go into providing safe and ample drinking water day and night, 365 days a year. Nor is it a lack of guidance and diligence on the part of New Hampshire’s regulatory community.

One of the main reasons that water infrastructure has been neglected is that much of it, in fact, is buried and out of sight and out of mind of the user. Making the case for something that the customer, tax payer, or public in general cannot see (especially when it comes to spending money), is a difficult pitch. And although the actual condition of buried infrastructure is often unknown, we do know that much of our drinking water infrastructure has exceeded its design life and/or operating capacity.

The ASCE report states that New Hampshire’s population, especially in higher density cities where public drinking water infrastructure is utilized the most, will continue to grow through the year 2035. The report goes on to say that failure to invest in drinking water infrastructure can result in service disruptions, damage to other types of infrastructure, and can impede emergency response. We know that stress to New Hampshire’s drinking water infrastructure was exacerbated in 2016 due to drought, especially in the southern part of the state. Hundreds of public and private wells went dry or couldn’t meet system demands. One-hundred sixty-six community water systems implemented water use restrictions, while fifteen municipal water systems had voluntary or mandatory outdoor water use bans.

Another problem which shed light on the need for water system infrastructure improvements in 2016 was emerging contaminants. In many cases water main extensions to areas of contamination can effectively solve the problem, but currently there is no mechanism in place to fund water main extensions.

The ASCE closed its report with a number of recommendations to address New Hampshire’s drinking water infrastructure needs. First and foremost the report states that ***“it is imperative that citizens and***

leaders in NH understand the critical need for reliable drinking water and advocate for sustainable funding sources to deliver adequate drinking water infrastructure to our citizens”.

Other ASCE recommendations are:

- ◆ To reinvigorate the State Revolving Fund (SRF) program, and to triple the annual appropriation.
- ◆ To fully fund the Water Infrastructure Finance and Innovation Act.
- ◆ To preserve tax exempt municipal bond financing.
- ◆ To establish a federal “Water Infrastructure Trust Fund”.
- ◆ To encourage regional approaches.



Construction Day 2017 continued from page 1

One of the last stops was at the site of two new wells connected to Dover’s distribution area in the Pudding Hill Aquifer. Also at this site, the city is conducting a pilot program to artificially recharge the aquifer from the Bellamy River.

Thank you to all our sponsors who helped make this event possible.

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2017 Legislative Update

The legislative session came to a close in June and NHWWA is happy to report that most of the bills we were tracking were either retained/rereferred in a committee, Inexpedient to Legislate (i.e., killed) or tabled. There were also a few that were amended so that they were no longer of concern for the Association. Below is a recap of what exactly happened to all of those bills we started tracking back in January.



Governor Sununu signs SB 57 into law.

To start, we're thrilled to report that NHWWA is celebrating two wins from this legislative session:

- ◆ **SB 57 (and HB 119)** (New Title) making appropriations to the department of environmental services for the purposes of funding eligible drinking water and wastewater projects under the state aid grant program and relative to making an appropriation from the drinking water and groundwater trust fund to the department of environmental services to address drinking water contamination in Amherst.

While HB 119 did not make it through crossover and died on the House floor, SB 57 had more success. Initially it appeared that it might not make it through after being tabled in the Senate, however Sen. Bradley brought it back to life and, after several amendments and a committee of conference, the bill passed through both bodies and the Governor signed it into law on July 10. The final version of the bill appropriates state aid grant (SAG) money for 19 water and wastewater projects, 12 of which were previously supported in HB 119. Each of the projects were eligible for grants prior to the July 1, 2013 effective date of the current moratorium and if passed, would be funded in the 2017 fiscal year with additional payments coming forth in 2018 and 2019. The Governor held a Bill Signing Ceremony on Thursday, July 20 at the Amherst Town Hall in Amherst, NH.

- ◆ **HB 463 (LSR 0553):** (New Title) regulating groundwater pollution caused by polluting emissions in the air and relative to standards for emerging contaminants in drinking water.

This bill became NHWWA's primary focus after HB 485 (relative to standards for emerging contaminants in drinking water) was retained in House Finance. The prime sponsor of HB 485 worked with members of the Senate to introduce an amendment with language similar to the bill that was retained.

The amendment bought back the language that NHWWA was strongly opposed to in previous amendments requiring a 20 ppt standard for PFOA and PFOS. It was quickly replaced with a second amendment that would require NH Department of Environmental Services (NHDES) to establish a Maximum Contaminant Level (MCL) and conduct an Ambient Groundwater Quality Standard (AGQS) review process using the "lowest" standard "reasonably supported by science". By this point, the bill was gaining attention from other associations and the media. We joined forces with several other associations and spearheaded efforts to fight the amended version of the bill. A third amendment, which ultimately passed the Senate and went back to the House, still required NHDES to set an MCL for PFOA and PFOS and removed the word "lowest" but mandated that the science of other states with lower standards be

Continued on page 7

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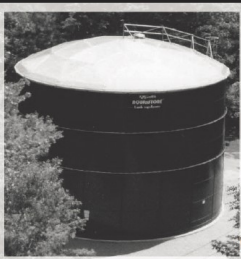
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25th Annual NH Drinking Water Festival and Water Science Fair Held in Keene

On May 10, 2017 students from Keene, Manchester, Westmoreland, Marlborough, Surrey and Harrisville schools participated in the New Hampshire Fourth Grade Water Science Fair. Finalists brought their impressive water science projects to Keene to compete for top honors. Students presented their research in front of a panel of judges. Congratulations to Anna Dumond from Keene, who won first prize; Greyson Ansevin-Allen from Keene, who took second prize; Kyleigh Reiss from Manchester, who took third prize; and Maia Chretien from Keene, who came in fourth place. Honorable Mentions go out to Oliver Villa from Manchester and Oriah Holmes and Claire Holmes from Keene.

Over 330 students from those communities also participated in the 25th annual New Hampshire Fourth Grade Drinking Water Festival. Scientists, engineers, consultants, environmental educators, water operators and artists from a wide variety of organizations and agencies from across the state led hands-on activities to share their expertise with students. Students learned about ways to keep water clean, how to test water quality, how to conserve it, about aquatic insects and animals, and how climate change is affecting water systems. Students also voted on the best tasting drinking water from a variety of communities. Concord General Services won the coveted Best Tasting Drinking Water Award.

The festival and science fair would not be possible without the long hours contributed by NH Drinking Water Coalition members; NH Department of Environmental Services (NHDES), NH Water Works Association (NHWWA), Granite State Rural Water Association (GSRWA), RCAP Solutions, Manchester Water Works, Merrimack Village District and Keene Water and Sewer Division.

Also, thank you to all the organizations who sent staff to spend the day engaging fourth graders in water related activities: Amoskeag Fishways, Aries Engineering, Cheshire County Conservation District, GSRWA, Harris Center for Conservation Education, Keene Water and Sewer Division, Lake Sunapee Protective Association, NHDES, NH Department of Transportation, NHWWA, NH Public Health Laboratories, Plymouth State University, RCAP Solutions, Squam Lakes Natural Science Center, Stonewall Farm, Sullivan County Conservation District, and the University of New Hampshire.



2017 NH DRINKING WATER FESTIVAL

Thank you to the companies and organizations that made it possible!

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NHWWA Calendar of Events

<u>When</u>	<u>What</u>	<u>Where</u>
October 26	NH Drinking Water Expo & Trade Show	Concord
November 2	Annual/Technical Meeting.	Concord
November 7 & 14	Advanced Surface Water Treatment	Manchester
November 7	Small System Roundtable	Conway
November 9	Small System Roundtable	Derry
December 5	Asbestos Refresher	TBD
December 7	Operator Training	Concord

View upcoming meetings and events at NHWWA's website at www.nhwwa.org. Stay tuned for more events being planned.

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NHWWA Members Recognized at the 2017 NEWWA and NHWWA Joint Membership Meeting

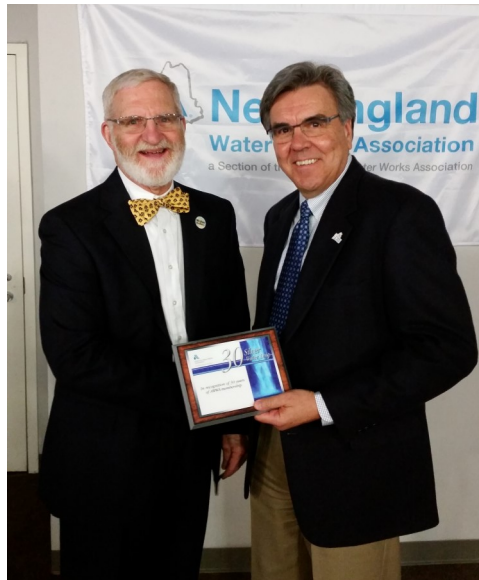


Floyd Dungelman of Laconia Water Department was presented with the NHWWA 2016 Meritorious Achievement Award at the NEWWA and NHWWA Joint Membership Meeting on January 19, 2017 in Portsmouth, NH. Floyd has worked for the City of Laconia since 1989. During his time there, he has risen to Chief Operator and attained his Grade III Treatment and Distribution licenses. Floyd has overseen the expansion of the water tank storage system from two tanks to five as well as a 3-year upgrade of the 6MGD treatment plant.

NHWWA President Ian Rohrbacher (right) presents Floyd Dungelman (left) with the NHWWA 2016 Meritorious Achievement Award.

Phil Bilodeau (left photo) and Tom Cravens (right photo) were recognized for their 30 year membership in New England Water Works Association. Tom, former Backflow Program Manager for the City of Portsmouth, and Contract Backflow Specialist, served as president of NHWWA in 2005-2006. Phil was the Deputy Director, Concord General Services and a past NHWWA president. He also served as the NH State Director on the NEWWA Board for 2 years.

NEWWA President Chris Hodgson presents the awards.



NHWWA Member “Retires”

In August, Philip Bilodeau announced his retirement as the Deputy Director for Concord General Services, a position he had held since 2002. A professional engineer, Phil had an extensive career as a professional engineer and a longtime employee with the City of Concord, NH.

In 2016, Phil was awarded the John H. Chafee Distinguished Public Servant Award from NEWWA for his steadfast dedication, long-time leadership and his advocacy for the association. This award celebrated his extraordinary commitment to public health issues and promoting the greater good of society. Phil served on the NHWWA Board of Directors from and was President from 2009-2010. He chaired the NHWWA Legislative Committee and the NEWWA Utility Recognition committee, as well as served as the NH State Director on the NEWWA Board of Directors.

Phil resides in the town of Deerfield, NH with his wife of 48 years. They have two children and one grandson. His retirement came at the time of a unique opportunity to serve the Project Manager for the new Saco River Treatment Facility for the Maine Water Company. NHWWA congratulates Phil on his retirement and wishes him great success in his new endeavor.



Phil Bilodeau receives a retirement gift from the City of Concord, NH.

Aquarion Water Acquired by Eversource Energy

Aquarion Water announced on June 2 that Eversource, New England's largest energy company, is acquiring Aquarion Water Company, the region's largest private water company. The two utilities serve nearly four million customers combined in Connecticut, Massachusetts and New Hampshire. The acquisition of Aquarion is valued at \$1.675 billion, comprised of \$880 million in cash and \$795 million of assumed Aquarion debt.

Aquarion serves nearly 230,000 customers in Connecticut, Massachusetts and New Hampshire. "For Aquarion, becoming a part of Eversource ensures local ownership that is committed to providing the resources needed to make investments in the business to drive long-term success." said Jim Judge, chairman, president and chief executive officer of Eversource.

The acquisition requires approval from the Connecticut Public Utilities Regulatory Authority, the Massachusetts Department of Public Utilities and the New Hampshire Public Utilities Commission. It also requires U.S. Justice Department review under the Hart-Scott-Rodino Act. The transaction is expected to close by December 31, 2017.

Legislative Update continued from page 3

considered. The amended version did not receive a concurrence (agreement) from the House and therefore it was sent to a Committee of Conference where members of both bodies tried to hash out the differences. We were working feverishly at this point to get this bill killed and we were fortunate enough to have the House members on our side. Rep. Barry, Rep. Christensen, Rep. Lisle, and Rep. Ober understood our concerns for the financial implications that the bill could have on water purveyors, and NHDES, while also recognizing that the agency could move forward with setting an MCL without this legislation. Thus, they non-concurred with the Senate and the bill ultimately died.

We were thrilled with this outcome but we know it is short-lived. Discussions have already begun on the drafting of legislation for next year and we expect that soon efforts will be underway to get HB 485 out of its retained committee. NHWWA is also working with the NH Water Pollution Control Association, North East Biosolids and Residuals Association, NH Municipal Association, Granite State Rural Water Association, Emery & Garrett Groundwater Investigations, and the Business & Industry Association on this important issue.

The remaining bills are ones that NHWWA tracked closely this session.

◆ **HB 298 (LSR 0242):** *relative to the mechanical licensing board.*

NHWWA was initially concerned with this bill as it would expand the definition of plumbing so that any licensed plumber may also maintain, repair or replace existing well pumps. The bill was amended by the prime sponsor during the first hearing which alleviated our concerns for the bill. Ultimately it was retained in committee anyway.

◆ **HB 485 (LSR 0286):** *relative to standards for emerging contaminants in drinking water.*

This was a high priority bill for NHWWA as various amendments came forward. It started as a bill that necessitated "the most conservative approach to exposure for children and other vulnerable populations to determine emerging contaminant criteria in drinking water" and was amended to a bill that established an MCL for drinking water contaminants and imposed a 20 ppt limit for PFC's. Thankfully, concerns were brought forth by several associations for the financial impact the bill could have on public water systems and the bill was retained in House Finance. See HB 463 for what happened after that.

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Welcome New Members

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Adam Carignan, GeoInsight, Inc.
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Green Energy and the City of Berlin Water Works

Andrew J. Sharpe, PE and Craig Carrigan, Superintendent, Berlin Water Works

The City of Berlin Water Works (BWW) was awarded a 2010 Drinking Water State Revolving Fund (DWSRF) loan to fund two "Green Energy" projects. A portion of this funding was used to pay the additional costs associated with energy efficient lighting, doors, windows, HVAC equipment, and roof mounted solar panels during the renovation of their office, maintenance, and operation buildings located on Willow Street. The remaining funding was used to install an energy recovery turbine at the Ammonoosuc Water Treatment Facility (WTF) located on Jericho Road.

The Ammonoosuc WTF went online during 1995. It replaced an aging pressure filter plant constructed circa 1960. It treats water from the Godfrey Dam Reservoir located in the National Forest approximately 5 miles away from the plant. The new plant utilized packaged treatment technology manufactured by Microfloc™. The head requirements for this process were much less than those required by the pressure filter plant. Therefore, it was necessary to install a pressure reducing valve (PRV) on the raw water transmission main as it entered the plant.

Static pressures upstream from the PRV were about 57 psi. Under actual operating conditions, the PRV reduced pressures by anywhere from 12 psi at a flow of 3,000 GPM to 54 psi at 500 GPM. With funding from the DWSRF loan, BWW investigated the efficacy of using an energy recovery turbine to replace the PRV and extract a benefit from the pressure drop being provided by the PRV. Investigation of the flows and the residual pressures at the WTF and discussions with the selected system integrator (SOAR Technologies from Redmond, WA) indicated that an inline turbine could dependably produce 25 kW at the flows and pressures available at the WTF.

The project team determined that, due to lack of suitable space within the existing plant, it would be necessary to construct a turbine hall addition to the plant. While only one turbine is installed, the addition provides space for a second turbine. As an additional benefit, the Turbine Hall made it possible for the BWW to eliminate the last confined space in their water system.

The turbine went online in March/April 2016. All power produced by the turbine that exceeds what the plant consumes is sent to the grid. The turbine produces 100% of the plants power needs. Through the end of May 2017, the turbine has produced a net of 52,800 kWh and allowed the BWW to reduce system demand from 75 kW to 62 to 64 kW. BWW is currently working with its energy providers to determine the value of the "banked" power.

The solar panels installed at the Office/Operations/Maintenance facilities produce a net power production during the long sunny days of summer. However, during the short and overcast days of winter, they only produce about 20% of the power consumed. Over the course of a year the panels produce about 50 - 60% of the power used at this location. The BWW website has a link to a real-time display of actual power production from the panels. It can be seen at https://enlighten.enphaseenergy.com/pv/public_systems/abbn135684/overview.

BWW also has installed two pole mounted solar panels at the Godfrey Dam. This allows BWW to monitor and operate this remote facility without the need for a generator. These panels are designed to passively follow the sun using a fluid that expands thereby changing the center of gravity of the panels causing them to move as the sun travels from east to west.



Berlin Water Works' energy recovery turbine at the Ammonoosuc Water Treatment Facility.

Take me out to the ballpark...

A fun time was had by all at the 1st ever NHWWA Fisher Cats Outing on Thursday, August 3. The perfect summer evening for a ballgame, there was a cool breeze in the air as the stands filled with fans for the game. A generous buffet of ballpark food was enjoyed by attendees. The game concluded after the top of the 9th inning with the Fisher Cats taking a 3-0 win against the Bowie Baysox.

The evening concluded with a spectacular fireworks display. NHWWA would like to extend a big thank you to our sponsors that helped make this event possible.

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NHWWA plans to make this an annual event. Stay tuned for an update on when next year's event will take place!

Legislative update continued from page 7

◆ **SB 55 (LSR 0881):** *relative to backflow devices for water.*

The bill would have allowed someone certified to do backflow testing to work on the devices anywhere in a building, not just adjacent to the drinking water distribution system. After a lengthy hearing the bill was retained in committee. It is expected that in the fall it will undergo additional work by the committee members in an effort to resolve the concerns that both the plumbers and backflow specialists expressed.

◆ **SB 240 (LSR 0926):** *(New Title) relative to the monitoring and treatment of contaminated wells.*

When introduced, this bill was very concerning for NHWWA as it would require municipalities to connect a dwelling that has a well contaminated by man-made contaminants to a public water supply at the cost of the municipality. It was amended by the prime sponsor removing the language requiring municipalities to pay for the connection and instead placed the financial burden on the party responsible for the contamination. However, the bill was unable to get out of committee was rereferred to Senate Finance.

◆ **SB 247 (LSR 0979):** *preventing childhood lead poisoning from paint and water and making an appropriation to a special fund.*

While NHWWA did not take a position on this bill we were tracking its progress closely. Charged with various tasks mostly pertaining to lead paint and testing, this bill included some provisions applicable to drinking water. Specifically, it defined remediation procedures if lead is detected in a rental unit; testing for lead in schools and child care facilities; and disclosure of lead in public water systems. The bill lost traction once in the House and was ultimately retained by House Finance.

Things should start to pick back up again soon and we expect to see many of the committees with retained bills and study committees/commissions to begin meeting.

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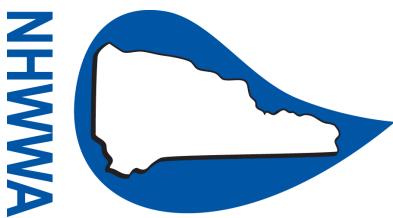
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