



**New England  
Water Works Association**  
A Section of the American Water Works Association

# The Source

The Quarterly Newsletter of NEWWA

Summer 2016

**Lead** — pages 2 and 3



Member Spotlight

4



January Membership Meeting

10



Ray's Retirement Party

12

# You Can Learn a Lot from the NEWWA Journal— Even the 1901 Edition

By Steve Ryan, Executive Director



Like most of you, I have been thinking a lot about the recent stories in the media regarding water quality and safety. While I have no direct information regarding the specific details of the situation in Flint, Michigan, my experience as an attorney leads me to believe that the focus of the investigation will be on what people knew and when they knew it.

I think one thing we can take away from that situation is that knowl-

edge is a powerful thing and, in a profession as complex and vital as ours, it can be the only thing that ensures the public is provided with safe drinking water every day. For more than 135 years, NEWWA has been an important source of knowledge for drinking water professionals. In fact, I was surprised to learn that our own *NEWWA Journal* is, in fact, THE oldest continually published drinking water research journal in the entire world! It represents over a century of hardworking, smart, people sharing insight and information to try to advance the science of making drinking water safer. As NEWWA members, I think this is a history that we can and should all be very proud of.

While science and research have certainly changed over the last 135 years, you can still learn a lot from *NEWWA Journal* articles, even the really old ones. For example, here is a direct quote from a paper about issues regarding lead in drinking water that was published in the *NEWWA Journal* in February, 1900 by then NEWWA President Fayette Forbes:

“The Investigation of the State Board of Health has also shown that a change in the source of supply—that is, furnishing a different water through the same lead pipes—may make the use of water dangerous to health where no danger existed before, on account of a much larger amount of lead now dissolved.”

*NEWWA Journal, Volume XV, p. 59 September 1900 to December, 1901*

I reference this particular *Journal* paper not to make assumptions about what may or may have not occurred in any particular water supply but rather to reinforce the true value proposition that NEWWA has made to drinking water professionals for over a century: we are YOUR resource for research, education/training, advocacy, and outreach relating to safe drinking water. As we have done since 1882, NEWWA's leadership, staff, and incredible volunteers strive to provide the very best in timely information and top-notch learning opportunities to the men and women who have some of the most important jobs in New England. It is my belief that if knowledge really is power, then NEWWA's members are—and will continue to be—a truly powerful group. I take great pride in this belief and, as drinking water professionals and NEWWA members, I hope you do too.

In my opinion, the value proposition of NEWWA membership is as clear today as it was in 1900 and, while I can't say for sure, I think Fayette Forbes would agree. ■

## In The Boardroom

By Chris Hodgson, NEWWA Vice President

It is certainly a privilege to have been elected to NEWWA's Board of Directors as vice president. For me, it is an opportunity to support our profession and the organization we rely upon for leadership and guidance for all things water. Your board has been actively engaged to meet the ongoing mission of our organization and provide the best support for our members.

In addition to the traditional topics of building our membership, recruiting talented YPs to our profession, and providing the best training available, we are currently faced with escalating negative news about public drinking water. With the water crisis in Flint, Michigan, as the springboard, the media seems to have turned its attention to the safety of drinking water. In addition to renewed focus on lead in drinking water, the rise of emerging unregulated contaminants has brought many communities' water systems to the front page.

While all drinking water organizations, including NEWWA, work constantly with its members, regulators, and legislators to establish and meet drinking water standards, the public can too often get the wrong impression about their water due to misleading and inflammatory news. While there are exceptions, it seems that the style in which most reports are presented and the unanswered questions about health risks have resulted in an erosion of public confidence in their drinking water. Too often, the answer to a tap water concern is to reach for bottled water. What does that say to the public about our product?

To address this trend and to stay actively engaged with recent regulatory activity in response to drinking water issues, your NEWWA board organized a special meeting with representatives of the New England state drinking water organizations. The meeting was held on April 19 in Manchester, NH. After reviewing the December 2015 report of recommendations to the U.S. EPA by the National Drinking Water Advisory Council, and subsequent response by AWWA, a discussion was held to address the impact the recommendations could have on utilities and the public. The group also discussed, at length, the challenges with increasing focus on emerging contaminants, the potential for new regulations, and the impact on public perceptions of drinking water. The group established a preliminary plan for communications between NEWWA, the state associations, and the regulatory community for active collaboration on these topics, in addition to a potential symposium this fall, and development of responsive communications for utilities.

In addition to these steps, the 2016 NEWWA Planning Session, to be held in July, will include a focus on developing messaging for our member utilities to utilize, to reinforce confidence in tap water and to rebuild the public's trust. The messaging will help utilities reinforce the safety and reliability of public drinking water and to recognize the work done every day by their highly competent water professionals.

The priority for NEWWA remains: to be the best resource of guidance, information, and advocacy for our member utilities and for our profession. Ultimately, our goal is for drinking water to be in the news, for all the right reasons. ■



## More on Plumbum

It seems rather amazing that this one Latin noun made it through history. I am sure that there are those amongst us that know gold is symbolized Au, but who utters *aurum*? There is probably some alliterative/plebeian allure to uttering *plumbum*.

Lead. Easy to extract and smelt, some archeologists believe it may be the first metal to ever be smelted. Anyone who has used lead fishing weights or worked on a lead joint knows that this metal is readily shaped and easy to work with.

Lead's physical properties and affordability make it useable for electrodes, ballast, munitions, shielding, alloys, glazing, paints, and as a heat stabilizer in PVC products. I'm sure/hope the reader is aware of the issues lead presents as a neurotoxin.

At this year's annual conference we will be having several opportunities to further these discussions. We have invited Dr. Marc Edwards from Virginia Tech to speak on the very topic. Dr. Edward's work in Flint and the District of Colombia ensured that these pressing water quality issues were not impetuously dismissed. He is very outspoken about the responsibility we have as professionals to be transparent and to truly protect public health.

I hope many members can make Marc's keynote talk. As professionals we need to challenge ourselves and take on the difficult issues. This doesn't mean my way or the highway. It requires meaningful conversation with the goal of getting to a place of better science, understanding, and communication.

When our predecessors were looking at the use of lead pipe for services in the late 1800s there was very active debate within NEWWA about its use. I should also note that two of the original 50 or so associate members had lead in their name: Boston Lead Manufacturing and Chadwick Lead Works.

Our predecessors wanted to select robust materials that supported excellent water quality. The civil engineer Frank Fuller presented a paper to NEWWA in 1887 describing how Ware, MA, had selected against lead services: "Much thought and attention were given to the choice of material for the service pipes. Lead is no doubt the most durable, and would perhaps be the cheapest in the end." (Lead was more expensive per foot, but considered to have a longer useful life.) "There is, however, a slight prejudice against it, although there is probably but little ground for it. The result of correspondence with other towns and the examination of samples of various kinds of pipe which had been in use for some years led to the adoption of plain wrought iron pipe, 1 inch in diameter lined with pure cement 1/8 of an inch thick."

In this time period there was a growing awareness of the issues presented by lead and the importance that the lead remain passivated. "The obvious objection to lead is the haunting shadow of possible lead poisoning. Experience has, of course, shown that many waters do not act injuriously upon lead, a protective coating being soon formed. Other waters do dissolve the lead, and for such, lead service is unsafe." *NEWWA 1897 pg. 41*

The selection of materials has always been difficult: "The greatest trouble we all experience is a cement pipe man who will come along with a piece that is nice, I can find it in my own city, and tells us what that has done, and then he will take a piece of cast-iron pipe that is filled with rust and show that. Then another man, who is in favor of cast-iron pipe, will come along with a piece of cement pipe that is all torn to bits, and he will compare that with a nice piece of cast iron pipe... I want to get the best thing to lay, myself. There are a good many people who don't want to drink through lead and say it is bad stuff... We have tried all kinds of pipe, and it is pretty hard to get at this matter, and get at it right, and get the best thing; but I am satisfied that what will work well for service pipe in one place won't work well in another." *NEWWA 1890 pg 54-55*

My theme this year is to remember where we have been, to build on the present, and to be future leaders. I hope this brief reflection on lead in our association's history, plus the present ongoing need for lead vigilance will inspire you to join us this fall to discuss and take action on the topic of lead and the other important topics to be discussed at the 135<sup>th</sup> Annual Conference, September 18-21, in Providence, RI. ■

## Summer 2016

Issue No. 127

### IN THIS ISSUE

You Can Learn A Lot .....	2
In The Boardroom .....	2
President's Message .....	3
Member Spotlight .....	4
Save the Date .....	5
NEWWA Election 2016 .....	5
Ted Kenney to Retire .....	5
On the Horizon .....	6
Spring Council Meeting .....	7
Distribution Corner .....	8
Water Conservation for Industry... ..	9
January Monthly Meeting Photos .....	10
Young Professionals Celtics Event .	10
New Members .....	10
Spring Joint Regional Conference & Exhibition Photos .....	11
Ray Raposa's Retirement Party ....	12

### New England Water Works Association

125 Hopping Brook Road  
Holliston, MA 01746

(508) 893-7979 Phone  
(508) 893-9898 Fax

[www.newwa.org](http://www.newwa.org)  
[facebook.com/NEWaterWorks](https://facebook.com/NEWaterWorks)  
[Twitter@newwaterworks](mailto:Twitter@newwaterworks)  
[youtube.com/NEWaterWorks](https://youtube.com/NEWaterWorks)  
[instagram.com/newwaterworks](https://instagram.com/newwaterworks)

#### Editor: George R. Allan

Stantec Consulting Services  
(978) 692-1913 Phone  
(978) 692-4578 Facsimile  
[george.allan@Stantec.com](mailto:george.allan@Stantec.com)

#### Advisor: Kirsten King

Director of Communications and  
Member Services

#### Layout Design & Production:

**Tom Reilly**  
[t\\_reilly3@verizon.net](mailto:t_reilly3@verizon.net)

The views and opinions expressed in *The Source* are those of the individual authors and are not necessarily those of the NEWWA, its officers, or the editor.

#### EDITOR'S NOTE

We welcome letters by members on topics that are timely and of general interest to fellow members.

## Member Spotlight

By Mary Quigley

### Patricia Myers Laboratory Technician II

City of Concord, NH

Patricia Myers is the laboratory technician at the city of Concord Water Treatment Plant in Concord, NH. Her responsibilities include performing drinking water quality analysis in the lab and the field, training Concord staff in laboratory best practices, maintaining the lab's certification, and coordinating customer outreach.



Pat initially became involved in NEWWA in 2012 when she volunteered at the Laboratory Operations Symposium and has contributed to each symposium ever since. She currently serves as secretary on the NEWWA Laboratory Operations Committee. The committee is currently working on the 18<sup>th</sup> Annual Laboratory Operations Symposium, to be held on October 6, 2016, at NEWWA headquarters.

### Describe your working relationship with the city's water operators.

When I started working at Concord there had not been a separate person just working in the laboratory, and I was the first laboratory technician who was not primarily an operator. I do have an operator's license, but that's not my day-to-day job. Before the advent of SCADA, if the plant was making water, an operator was at the plant, be it holidays, weekends, 3<sup>rd</sup> shifts. Operators needed the laboratory skills because bench tests were necessary whenever the plant was running. My job has been to provide laboratory skills training so that the operators can do their best work in running the plant. Whenever we need a new test, or have a new piece of lab equipment, I figure out what needs to be done and train the operators who will be using the test for process control. I think they are proud of their laboratory skills, and so am I.

### What are some larger projects that you work on in the laboratory?

A lot of what I do is organizing and coordinating the special sampling projects, such as lead and copper, or the UCMRs. A lab our size would be hard pressed to be equipped and certified for all the types of chemistry testing that a public water system must do, so we contract with outside laboratories. My role is to find the appropriate lab and make the arrangements for sample bottles, shipping, and payment. I make sure sampling and handling is done properly and get the samples to the lab on schedule. Lead and Copper is especially complicated due to the communication and coordination that's necessary with home owners.

The lab must be NELAC certified, and keeping it certified is another big part of my work. Laboratory certification is renewed annually, with an onsite inspection of the lab bi-annually. I am currently in the process of going through SOPs and making sure our Laboratory Quality System is compliant with the ever-changing requirements.

### How were you introduced to NEWWA?

Back in the 1990s, my supervisor, Bill Daly, who was very active in NEWWA and the Laboratory Operations Committee, recruited me to help him with the hands-on demonstrations at the Laboratory Operations Symposium.

A few years ago, I realized I could attend the Lab Ops Committee meetings via telephone conference call and have been able to participate more. I have helped to plan three or four of the symposia. Right now I am the secretary of the Laboratory Operations Committee. I volunteered to be secretary because I felt that since I've done minutes for other organizations it was something I could contribute.

### Do you often interact with the city's drinking water customers?

I've worked on the consumer confidence reports, our annual water quality report to consumers, since that program began in 1999. The intention is to inform the public—the consumer—about what is and what is not in their water. We get occasional phone calls from customers with questions, and I've always enjoyed working on those; figuring out what the problem actually is and either reassuring them or helping resolve the problem.

### How have you addressed your customers' increased interest in their drinking water quality?

There has always been a certain level of interest in the drinking water. But ever since the events in Flint, Michigan, the public has become so much more aware of their water and the difficulty of providing drinking water. We have received a lot more inquiries. The city has worked hard to provide as much information as people want about Concord's water quality. The city has very good tasting water and underlying water quality. We're really lucky. ■

TODAY'S ENGINEERING CHALLENGES...

**Environmental Partners**  
A partnership for engineering solutions

T: 617.657.0200 • E: info@envpartners.com  
www.envpartners.com

REQUIRE A PARTNER WITH SOLUTIONS!

TEAM  
**EJP**  
Pipeline Specialists

1-800-EJP-24HR • EJPRESCOTT.COM

Committed to delivering  
infrastructure solutions that  
strengthen communities

280 Summer Street  
Boston, MA 02210  
617.695.3400  
www.dewberry.com

Dewberry

## Save the Dates – 2016 Events

Please be sure to save the dates for these upcoming major events in 2016:

- **AWWA ACE16** – June 19–22 – Chicago, Illinois
- **Planning Session** – July 24–26 – Courtyard Marriot Downtown – Keene, NH
- **Annual Conference** – September 18–21 – Omni Providence – Providence, RI
- **Laboratory Operations Symposium** – October 6 – NEWWA – Holliston, MA
- **Water Resources and Sustainability Symposium** – October 27 – Devens Commons Center – Devens, MA
- **Joint November Monthly Membership Meeting with RIWWA** – November 17 – Crowne Plaza, Warwick, RI
- **December Monthly Membership Meeting** – December 15 – Lantana, Randolph, MA



## NEWWA Election 2016 – Introducing Electronic Voting

For the first time, NEWWA members will be invited to cast their ballots for this year's election using an electronic voting system. NEWWA will be using myDirectVote online voting software to administer the election. In addition to being more cost effective and environmentally friendly, the NEWWA ad-hoc Teller's Committee predicts the use of electronic ballots will result in greater participation in the election while respecting NEWWA's traditional values and election process used for more than 130 years.

To ensure that instructions for your electronic ballot arrive in your inbox on or around August 1, 2016, add the following e-mail address as an approved sender: noreply@directvote.net.

To update your e-mail address with NEWWA, contact Mary Quigley, Membership & Volunteer Coordinator, at mquigley@newwa.org. If you do not have an e-mail address on file with NEWWA you will receive a paper ballot in the mail. ■

## Ted Kenney Set to Retire September 1

After 28 great years, NEWWA's Deputy Executive Director and Education Manager, Ted Kenney, has announced his retirement effective September 1. As everyone knows, Ted's outstanding work and accomplishments are a huge part of why NEWWA is the incredible organization it is today.

"As the notable Ted Williams once said: 'Baseball's future? Bigger and bigger, better and better! No question about it, it's the greatest game there is!'—the same can be said for the water works profession—it's the greatest there is," said Ted, when reflecting on his career. "I've had the honor of working alongside some of the profession's best and brightest who helped guide NEWWA's education program through the years and make it what it is today. And now it's time for me to hand the reins over to the next generation to perpetuate NEWWA's reputation for excellence."

"Ted has been and will continue to be a great resource for NEWWA," said Steve Ryan, executive director. "I know I am joined by our board and leadership when I say that I sincerely thank him for his nearly three decades of exemplary service as our leader of education and training."

Ted has generously agreed to help with the transition process on a part-time basis through December 2016 and will be available as a consultant and for special projects thereafter. Please join NEWWA in wishing Ted well as he begins his new chapter. ■

**Weston & Sampson**  
environmental/infrastructure consultants

1-800-SAMPSON  
westonandsampson.com

Five Centennial Drive, Peabody, MA 01960  
offices in: MA, CT, NH, VT, NY, NJ, PA, SC & FL

*When it's essential...it's Weston & Sampson.*

Comprehensive  
Water Services  
from Source to Tap

**WOODARD  
& CURRAN**

woodardcurran.com | 866.702.6371

## NEWWA Staff Directory

### Executive Director

Steve Ryan

### Accounting Manager

Pam Amalfi

### Materials Preparation Assistant

Melissa Boyd

### Backflow Prevention & Cross Connection Control

Nelson Cabral

### Events & Marketing Specialist

Katelyn Cahalane

### Executive Support & Publication Coordinator

Jacqui Campana

### Registration for Association Meetings, Events, Conferences & Classes

Jeanne Gilpin

### Deputy Director, Training Manager

Ted Kenney

### Director of Communications and Member Services

Kirsten King

### Accounting Clerk

Claire O'Dell

### Membership & Volunteer Coordinator

Mary Quigley

### Operation Programs & Technical Support

Paul Riendeau

### Office Manager, Training Center Coordinator

Linda Smith



## On The Horizon By Ted Kenney

### However We Remember it, We Shouldn't Forget it

"The only thing new is the history we don't remember." Harry S. Truman, 33rd President of the United States didn't actually say these words, but it is the most popular misquoted version and it has stuck. The actual quotation:

"The only thing new in the world is the history you don't know" may seem a bit more blunt. It is, however, far more Truman. It is both a challenge and a warning---seek out and learn from history or many things that spring up as "new" might well be history we simply don't know. History that could have been anticipated, perhaps afforded us a different approach, even altered an outcome.

April 1993, Milwaukee, Wisconsin; May 2000, Walkerton, Ontario; 2015-2016, Flint, Michigan. Three milestone drinking water and public health events. The first two fall into the category of history already written and share similar roots. The latter is a very different history still being recorded, each day bringing a different chapter. Are these chapters all new, or is there some history not remembered?

Like the chain of custody so familiar in drinking water sampling and analysis, the drinking water and public health chain has many links. Links forged between public officials, regulatory professionals, drinking water management and operations professionals, and educators and consumers. Like any chain, strong as its weakest link. Public health, public safety, and the public trust make it a chain critical to our lives.

The drinking water and public health crisis in Flint, Michigan, will inevitably become history as all events do. "The only thing new in the world is the history you don't know."

### Water for Thought

Soon after its formation in the late 1990s, the NEWWA Operator Certification Committee set about developing a series of pro bono service documents that the association could make available to the drinking water profession and to any and all interested parties. Advancement of the drinking water profession, and the water operations professional in particular, were components of the larger goal of providing safe drinking water and protecting public health. The first two work products of the committee follow. They are also posted on newwa.org under the "Certification Info." tab. When you visit the Web site, you might also want to look at the committee's third work product: "Offenses Providing a Basis for Enforcement Action." Over the years, these and other committee service documents have been referenced by countless agencies, organizations, and utilities around the country and beyond. Water for thought and links in a chain—public officials, regulatory professionals, drinking water management and operations professionals, educators, and consumers.

### New England Water Works Association Operator Certification Committee

#### Definitions

**Drinking Water Operator:** "An individual either employed, or retained by a public water supply system who, as part of their active job duties, is assigned the responsibility for operational activities that will directly impact the quality and/or quantity of drinking water provided to consumers."

**Primary Operator:** "A Drinking Water Operator (as defined) designated by the public water system who has direct responsible charge of daily operations of the treatment facility (facilities) and/or distribution system(s)."

**Secondary Operator:** "A Drinking Water Operator (as defined) designated by the public water system who, in the absence of the Primary Operator, has direct responsible charge of daily operations of the treatment facility (facilities) and/or distribution system(s)."

### Professional Code of Ethics for Water System Operators

The NEWWA Operator Certification Committee has developed the following rules of conduct of ethics for water system operators.

In order to establish and maintain a high standard of integrity, skills and practice in the profession of water system operations and to safeguard the life, health, property, and welfare of the public, the following rules of professional conduct are adopted by every person holding a license as a water system operator in New England.

All persons licensed in New England States are required to have knowledge of the existence of these rules of professional conduct and understand them.

1. The water systems operator shall, at all times, recognize his or her primary obligation is to protect the safety, health, and welfare of the public in the performance of his, or her duties. If his, or her judgement is overruled under circumstances where the safety, health, and welfare of the public are endangered, he or she shall inform his, or her employer of the possible consequences and notify such other proper authority of the situation, as may be appropriate.
2. The water systems operator shall accept and perform water operations assignments only when qualified by education, or experience, in the specific technical area and levels of water operations involved. The water systems operator may accept an assignment requiring education, or experience outside of his, or her, own field of competence, but only under the direct supervision of licensed, qualified co-workers, consultants, or employees.
3. The water systems operator shall be completely objective and truthful in all professional reports, statements, or testimony. He, or she, shall include all relevant and pertinent information in such reports, statements, or testimony.

If you have any questions regarding any NEWWA course, course registration, replacement of NEWWA CEU Certificates, NEWWA Official Transcripts, or the NEWWA Certificate Program, contact NEWWA Registrar, Jeanne Gilpin, at (508) 893-7979 or [jgilpin@newwa.org](mailto:jgilpin@newwa.org). Jeanne will be able to provide you with the information you'll need regarding forms and fees to document your continuing education for Drinking Water Operator Certification, or to register for any NEWWA course or the NEWWA Certificate Program. ■



## Spring Council Meeting

### Celebrating the Past, Embracing the Future

Reprinted from the June 2016 Issue of the NEWWA Journal

On April 20, 1986, Raymond J. Raposa took on the role of New England Water Works Association executive director. Armed with himself, as well as an assistant, his primary charge was to expand the association's training programs to fit the ever changing and evolving needs of drinking water professionals across New England.

Two years after starting his role, he hired Ted Kenney as the association's education manager (and who would later become its deputy director). Together, they expanded the association's services at such a rapid pace that they eventually purchased a stand-alone facility in Holliston, MA, which remains headquarters to this day. In the background of the photo is the front of the facility, which houses the association's now 13 employees, up to four classrooms, and two laboratories.

Over the years Ray's work with NEWWA included, but is certainly not limited to, moving offices multiple times to accommodate growth; adding permanent, full-time staff to help manage the expanding services and needs of both the association and its membership; and fostering, growing, and solidifying relationships with state and federal regulators and regional, state, and county water works associations, to which partnership efforts continue to this day.

The above photo depicts Ray's last large-scale membership meeting as executive director – the association's bi-annual Council Meeting, held on April 15, 2016. As executive director, Ray opened the doors to countless members and encouraged input as well as collaboration to help expand and create

quality programs and services for current and future generations. The Council Meetings bring together board members, committee chairs, key volunteers, and staff to brainstorm about what the association can do to better itself. The Council Meetings culminate in an annual Planning Session, which takes place each summer off-site and allows for intense planning, networking, and camaraderie for all those who attend. The Planning Session is open to all members.

On April 29, 2016, Ray passed the torch over to its new Executive Director Stephen J. Ryan, who had the fortune of working alongside Ray for 2 months. Steve has been able to benefit from all the intellectual capital Ray shared so the association can continue to grow and thrive, just as it has for the past 30 years.

And for that, all of us at New England Water Works Association say thank you, Ray. We wish you the best of luck in your retirement.

Pictured in the foreground are Executive Director Steve Ryan and former Executive Director Ray Raposa. In the background are (l-r): Nelson Cabral, David Miller, Jeanne Gilpin, Mike Greeley, Chris Hodgson, Mary Quigley, Blake Martin, Bob Mackie, Jim DeCelles, Steve Ryan, Mike Pelletier, Robert Radigan, Wade Pelham, Barbara Cook, Paul Riendeau, Mary D'Aoust, David Polcari, Margaret McCarthy, Nate Little, Carol Harris, Tom LeCourt, Randi McQuin, Craig Douglas, Ray Raposa, Ji Im, Colleen Heath, Luis Pizano, Katelyn Cahalane, Linda Smith, Claire O'Dell, Ted Kenney, and Jacqui Campana. ■



- Installations
- Supply
- Removal and Disposal

Anthracite Filter Media • Filter Sands • Filter Gravels  
Activated Carbon • Filter Garnet • Ilmenite • Greensand

Niagara Falls, NY • PHONE: 716.285.5680  
Florida • PHONE: 800.998.8555  
Brantford, ON • PHONE: 519.751.1080



**Welded Steel Water Storage Tanks**

Contact us for your potable water storage needs

Daniel A. Knight  
tel: 302-325-8401 dknight@CBI.com  
cel: 609-865-2477 www.CBI.com

CBI • 24 Read's Way • New Castle, DE 19720 • USA



**CDM Smith**

listen. think. deliver.

617-452-6000 | cdmsmith.com



36 Hudson Rd  
Sudbury MA 01776

800-225-4616  
www.tisales.com

Neptune AMR / AMI Solutions  
AVK Valves & Hydrants  
Ford Brass, Meter Setters, Repair Sleeves  
LMI Chemical Feed Pumps  
Zurn Wilkins Backflow Preventers  
Scaletron Cylinder & Tank Platform Scales  
Reed Water Works Tools

Serving New England and Upstate New York since 1963

**LEGGETTE, BRASHEARS & GRAHAM, INC.**  
Professional Groundwater & Environmental Engineering Services



- Water Supply Plans
- Well Rehabilitation
- Groundwater Exploration
- Level A Mapping
- Well Design
- Diversion Permits

Shelton, CT 203.929.8555  
Hartford, CT 860.678.0404

Office Nationwide | Toll Free 877.959.7800 | www.lbgweb.com

**WRIGHT-PIERCE**

Engineering a Better Environment

Serving New England  
Water Utilities for Over 65 Years.

www.wright-pierce.com | 888.621.8156

# Distribution Corner

By Tim Stinson, P.E. - Distribution and Storage Committee

Now that the construction season is ready to get underway, municipalities need to start looking over their “standard” specifications to insure they are up-to-date and represent the latest technologies and innovations. As we all know, items change all the time: would you expect to get the latest version of a 2016 automobile based on a 2014 specification? I doubt it.

Reviewing and updating your specifications is work and requires time. I have seen communities “update” specifications by changing thrust blocks to mechanical joint restraints. While this is a move in the right direction, it takes more than just requiring restrained joints at fittings. Restrained joints need to be included in adjacent push-on pipe in order to transfer forces into the surrounding soils. Without the adjacent pipe joints properly restrained, the system will fail and leakage or worse will occur. Restrained joint Web sites contain length calculators in which you add pipe diameter, soil type, bury depth, pressure, type fitting, etc., and the calculator will show the number of adjacent joints needing to be restrained. This info should be included in the specifications, along with appropriate pay items in the measurement and payment section.

Another issue is location of manufacture. Many companies have entered the waterworks materials field and have their devices manufactured in places like China and India. While supposedly cheaper than the US manufactured items, the end product lacks the finish quality and, in my opinion, rigid quality control and testing. One way to insure that you receive the product you specified is to require and state in your documents that items such as fittings, valves, restraints, corporations, etc., are manufactured (and not just “assembled”) in the United States or North America.

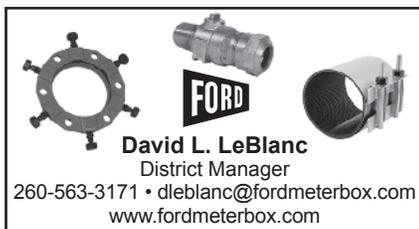
Another important item to include in your specifications and standards is to require submittals for your review. The review will allow you to compare your specification against what the contractor or supplier is furnishing. Many times, a cheaper or older version of an item is submitted. This is not to say do not allow substitutions. From the time your specification is prepared to when it is bid on, several months or more may have passed. Manufacturers may have revised the initial product, resulting in a newer version being available. The newer version may be equal or better than the original specified item. You will only learn this information through a thorough submittal review. Always remember, it is not up to the supplier or contractor to determine what materials will be used on your project; that is your responsibility. If the item does not meet your standards, you should disapprove of it or revise the submittal and have the contractor/supplier provide the correct item.

Some tips for preparing your standard specifications are:

- Have experienced staff oversee specification updates, revisions, and creation.
- If you lack staff or time to do updates, engage your consultant to do the work.
- Insure that the specified data is correct, non-contradictory, and up-to-date.
- Avoid copying or using old specifications.
- Do not blindly accept manufacturer/supplier specifications. Review them, compare with their competition and edit as necessary to insure you are getting the best product for your money.
- Use care when referencing ASTM/AWWA/UL standards in your specifications. Read the referenced document carefully to insure that conflicts with your intent do not exist.
- Use “shall” and “must” to place obligations on the contractor or supplier.
- Avoid use of word “best.” If you want something, state what you want. My “best” and your “best” may not agree.
- Do not repeat requirements. Ambiguity may result.
- Never tell a contractor how to perform the work. Legal issues will arise and you could be held responsible for claims.
- You can rule out certain methods of construction such as “blasting,” provided there are sound reasons for eliminating that method.
- When your revisions are complete, read them closely and “dummy proof” them. If you have questions or do not understand them, suppliers and contractors will have same problems.
- Put the final specs aside for several days then read them again. After a cool down period, you will see problems and needs for revisions.
- Shorter specifications are better than long text versions. Many specification issues begin by people adding text to the documents over time.
- Once you perform the above, finalize them and hope for the best.

When, and if, contradictions appear, you need to remember the person who did not prepare the specifications essentially gets to “choose” which options he wants to follow. Legal rulings have essentially stated that if the owner does not know what he wants, the contractor or supplier gets to make the decision.

Hopefully, following the above procedures will help you in preparing your documents and standards. As stated earlier, specification preparation requires work and time. Properly prepared documents should result in cost savings and successful project completions. ■



**David L. LeBlanc**  
District Manager  
260-563-3171 • [dleblanc@fordmeterbox.com](mailto:dleblanc@fordmeterbox.com)  
[www.fordmeterbox.com](http://www.fordmeterbox.com)



**FST and Stantec are better together.**

FST  
100 YEARS  
now  
Stantec  
[stantec.com/water](http://stantec.com/water)



**DN TANKS**  
DVK and Nelson  
Generations Strong

Sustainable Infrastructure  
Prestressed Concrete  
Water Storage Tanks

781.246.1133 | [www.dntanks.com](http://www.dntanks.com)  
Chris Hodgson, NE Regional Manager, [chris.hodgson@dntanks.com](mailto:chris.hodgson@dntanks.com)

# Water Conservation for Industry By George R. Allan

Water conservation is a common water management best practice for most communities. Typical conservation programs, however, focus only on residential customers. AWWA recently published a survey that looked at commercial, industrial, and institutional (CII) conservation programs. This first “National Survey of Commercial, Industrial, and Institutional Water Efficiency Programs” will be made available to the public this summer.

The survey’s goal was to summarize the knowledge of utility members about conservation programs in general and to provide members with information about existing practices and programs on CII conservation to assist them in developing their own programs based on the successful strategies used by other utilities.

The survey consisted of an online questionnaire that was sent to water utilities during the summer of 2015. There were 383 responses with 350 U.S. utilities and 33 in Canada. In New England, 18 utilities responded with 7 in Connecticut, 6 in Massachusetts, and 5 in Rhode Island.

Some of the key conclusions/recommendations included:

- 74 percent of the respondents had a formal conservation or water use efficiency program and 86 percent consider it as a water supply alternative. The size of the community influenced the adoption of water conservation programs. For communities with a population less than 25,000 only 48 percent had a program. For communities greater than 25,000, it jumps to 80 percent.
- Respondents indicated that the two most common reasons for establishing a water conservation program were utility stewardship/sustainability and regulatory compliance.
- California, not surprisingly, had the highest rate of utilities with conservation programs at 98 percent. The Northeast, defined as New England plus New York, New Jersey, Maryland, D.C., and Pennsylvania, had one of the lowest adoption rates with only 18 of the 35 respondents having a program.



- Based on responses, there was consensus that staffing for conservation programs is inadequate. Of those that had a conservation program, only about 70 percent had a dedicated budget for it.
- Less than 20 percent of the respondents had conservation programs for CII customers. The larger the community, the higher the adoption rate. The most common responses for not having the program were the feeling that CII usage was not significant and not having sufficient staff for the program.
- The four most targeted large water users were government buildings, large landscaped areas, colleges, and restaurants.
- Obstacles to establishing a CII conservation program included lack of high-level approval in the customers’ organization; lack of money in customers’ budgets to make improvements and retrofits; and insufficient incentives being offered to customers.
- In addition to customer education, successful CII programs provided incentives such as free water audits, free landscape irrigation evaluations, and customer rebates.
- Based on useful data provided by 46 percent of utilities with CII programs, the average reduction in water usage based on the utility’s population served was 0.43 gpcd.
- Utilities measured success of their CII program by water savings to the customer, participation rate, and customer satisfaction.
- There is a need for a template to help utilities implement their own CII efficiency program.

One area that the survey didn’t address was the “right sizing” of large CII meters. Proper sizing could pick up the low flows likely being missed by large meters. The resulting larger bills could be another inducement for large users to conserve. Right sizing of CII meters will also help reduce a utility’s “unaccounted for water” (UAW).

You can access the full report by visiting [awwa.org](http://awwa.org). ■

**ARCADIS** Design & Consultancy for natural and built assets

Partners throughout the water life cycle.

[www.arcadis.com](http://www.arcadis.com) |

Helping communities tap into water’s potential

**Stantec**

Design with community in mind [stantec.com](http://stantec.com)

**STATEWIDE**  
AQUASTORE, Inc.  
Premium Water and Wastewater Storage Tanks

315-433-2782  
[www.besttank.com](http://www.besttank.com)

“Client Service and Engineering Excellence  
...Since 1897”

**Haley and Ward, Inc.**  
Civil and Environmental Engineers

63 Great Road, Suite 200  
Maynard, MA 01754  
(800)339-3980 [www.haleyward.com](http://www.haleyward.com)

**Hazen**

617-574-4747  
[hazenandsawyer.com](http://hazenandsawyer.com)

**DOERING**  
Equipment Co.  
Est. 1968

SALES AND SERVICE  
WATER SYSTEM  
SERVICE TRUCKS  
[trucks@doeringeq.com](mailto:trucks@doeringeq.com)  
508-520-3629

# January Monthly Membership Meeting January 21, 2016 – Radisson Nashua – NH



## Young Professionals Celtics Event – March 2016



### New Members – March, April, and May – Welcome!

Town of Upton Water & Wastewater  
Clow Valve Company  
E.S.H. Zambarano Unit  
Water Treatment  
Bedrock Automation  
Town of Holbrook  
Town of Blackstone  
Town of Exeter NH-DAW  
Brian Antonioli  
Judy Leigh Arnobit  
Christopher Barrett  
Andrew Beaton  
Jennifer Benjamin  
Robert Bergman  
Melissa Brown-Rosenblatt  
Joseph Camilo  
Maeve Carlson

Larry Casey  
Cameron Chrystal  
John J. Cordaro  
Nilton Correia  
Max Dantowitz  
John Deauseault  
Peter Dipippo  
Marcos doCanto  
Nathan Einstein  
Ayhan Ergul  
Emily Farrand  
David Fox  
Larry Goodhue  
William Goodwin  
Christopher Gordon  
Anthony Guidice  
William Hale  
Deirdre Hall

Everett Hammond  
Patrick Harrington  
Anne Hayner  
Jeffrey Howland  
Raeanna Hughes  
Dave Iannuzzi  
Michael Jeffers  
Bob Keenan  
Daniel Lowe  
Kyah Lucky  
Peter MacDonald  
Jesse Marple  
Alex Marple  
Justin Martinez  
Jason Matt  
Kevin McManus  
Weiwei Mo  
Eric Mueller

Eric Muench  
Chuyen Nguyen  
Dennis Paquet  
Maria Proulx  
Dolores Randolph  
Henri Renaud  
Zoe Rodriguez Del Rey  
Saul Rosen  
Taylor Rowles  
Brian Ruane  
Steve Ryan  
Billy Sharp  
Peter Silverman  
Emily Smith  
Mikhail Starostin  
Andrew Stering  
Kristyn Stevens  
Harry Stewart

Ty Swavely  
Anthony Sylvia  
Randy Talbot  
Jean Teixeira  
Kelsey Vaughn  
Carrie Walker  
Jianhan Wang  
Xiyu Wang  
Marlo Warner  
Dan Wellington  
Patrick Wittbold  
Brian Wodecki  
Karen Yacos  
Ouya Zhang

Innovative Engineering Solutions



**TATA & HOWARD**  
www.tataandhoward.com

**Your Ad Here**

Contact Katelyn at 508-893-7979  
Kcahalane@newwa.org



Connecticut, Rhode Island, Massachusetts:  
**Dick Johnson**  
Maine, New Hampshire, Vermont, Massachusetts:  
**Scott Kelley**

855.526.4413  
help@utilityservice.com

civil & environmental engineering



**UNDERWOOD**  
engineers

25 Vaughan Mall Portsmouth, NH ph 603.436.6192  
99 North State Street Concord, NH ph 603.230.9898  
www.underwoodengineers.com

Check us out on Facebook,  
Follow us on Twitter,  
YouTube, and Instagram



**WATER SAFETY SERVICES, INC.**

Six Walnut Hill Park • Woburn, MA 01801-3720  
781-932-8787 • 888-932-8787 • 781-932-0957  
Main Office Toll Free Fax Line



Cross Connection Control Backflow Testing

# Spring Joint Regional Conference & Exhibition March 30-31 – DCU Center – Worcester, MA



**S  
W  
S  
S**

**Contract Operators of  
Water/Wastewater Systems**

Meter & Hydrant Testing  
Generator Maintenance

Small Water Systems Services, L.L.C.  
80 Taylor Street  
Littleton, Massachusetts 01460

**WBE/DBE**

[www.swss.biz](http://www.swss.biz) • 978-486-1008

**DIXON ENGINEERING, INC.**  
Engineering and Inspection Services for the Coating Industry

Inspection Services       Engineering Services  
 Tank Maintenance Inspections       Tank Painting Specifications  
 Underwater (ROV) Inspections       Coating System Failure Analysis  
 Antenna Inspections       Treatment Plant Coating Specs

Visit our website at [www.dixonengineering.net](http://www.dixonengineering.net)  
(800) 327-1578

**Water Resources  
engineering**

Asset Management | Energy & Sustainability  
Supply | Treatment | Pumping & Distribution  
Storage | Funding & Rates

**Tighe & Bond**  
Consulting Engineers | Environmental Specialists  
53 Southampton Road | Westfield, MA 01085 | 413.562.1600 | [www.tighebond.com](http://www.tighebond.com)



# New England Water Works Association

A Section of the American Water Works Association

125 Hopping Brook Road, Holliston, MA 01746-1471

NONPROFIT ORG  
U.S. POSTAGE  
PAID  
PERMIT NO. 17  
LEOMINSTER, MA



Like us on Facebook: [facebook.com/newaterworks](https://facebook.com/newaterworks)  
Follow us on Twitter: [twitter.com/newaterworks](https://twitter.com/newaterworks)  
Subscribe on YouTube: [youtube.com/newaterworks](https://youtube.com/newaterworks)  
Follow us on Instagram: [instagram.com/newaterworks](https://instagram.com/newaterworks)

## Ray Raposa's Retirement Party



On April 2, 2016, more than 130 friends, family, staff, and members came together to celebrate Ray Raposa's retirement party, held at the Lantana in Randolph, MA. The party was a success with many well wishes and presentations made to Ray. On the left, NEWWA President Craig Douglas presented Ray with a "free annual conference registration for life" as a gift from the association. And below, almost all of NEWWA's past presidents were able to attend and say one final thank you to Ray for his years of service.

