

The Vermont Rural Water Association provides training and support to drinking water and wastewater systems to promote healthy communities, rivers, and lakes across Vermont.

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On the cover: Lake Willoughby in Westmore, VT



- Well Rehabilitation
- Pump Repair & Maintenance Wastewater
- Construction of Large Diameter Wells
- Source Siting / Hydrogeology
- (PFAS)
- Brewery / Industrial Pretreatment
 - Stormwater
 - Municipal Pools

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Vermont Rural Water's 2024 Conference



by Tim Russo Deputy Executive Director

very big thank you to everyone who participated in our 2024 conference at Lake Morev Resort on May 9: attendees, sponsors, vendors, and presenters! It was a record-breaking event with well over 250 people in attendance and the first time the conference has ever sold out.

There were six training sessions throughout the day on topics including PFAS, physical security, safety, funding, and regulatory updates from the state drinking water and wastewater programs. Julie Moore, the Secretary of the Agency of Natural Resources, gave the keynote presentation.

At our Annual Membership Meeting, our board presented the annual report and announced the results of the board election. Margaret Dwyer and Jon Thornton were reelected to the board, and April Busfield won the vacant seat. After nearly 20 years of service, Rod Lamothe is stepping down as a board member, but he will continue in an advisory role. A huge thank you to Rod!









Clockwise from top left: Drinking Water Taste Test judges, Liz Royer during the membership meeting, the trade show, Rod Lamothe with a plaque commemorating his service to Vermont Rural Water.

The recipient of this year's Tony Torchia Award was John Choate, who is retiring after many years in the water and wastewater industry (see article on page 4).

We'd like to give special thanks to those celebrating 40 years of membership with Vermont Rural Water: the Village of Barton and EJP.

> **CONTINUED ON** PAGE 6 »



John Choate Receives Tony Torchia Award



by Elijah Lemieux
Wastewater Specialist

Permont Rural Water is proud to announce John Choate as the recipient of the 2024 Tony Torchia Award. This annual award recognizes individuals who have made significant contributions to the water and wastewater industry in Vermont. John's dedication and exceptional service over the past four decades have demonstrably improved Vermont's water quality and infrastructure, but his biggest legacy might be the support he's lent to colleagues throughout his career.

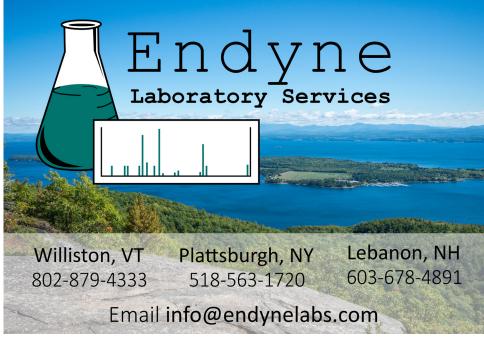
John was nominated for the Tony Torchia Award by Brian Line, his coworker at the City of Winooski. Brian said, "[John] has been a great boss, mentor and friend. His experiences in life and on the job have given John the knowledge and patience to deal with the public, contractors, and coworkers in the many, many. many different situations that arise with this type of profession and to run his water/ wastewater departments to the best of his abilities while teaching lots of people along the way."

Vermont Rural Water's board of directors presented John with the award during our conference at Lake Morey Resort in May. At the award ceremony, John said, "I've been in operations for 40 years, I know what it's like always being behind the scenes, so I appreciate this recognition."



John Choate with his award at Lake Morey Resort.

John's career reflects a deep commitment to clean water and a tireless work ethic. John's expertise spans the water treatment spectrum, from overseeing plant operations to leading crucial infrastructure upgrades. John's career in the field began in 1983 at Burlington's water quality lab, followed by a tenure as chief plant operator for all three of Burlington's wastewater plants before taking over at their new water treatment plant. He spent a couple of years working at the Vermont Department of Environmental Conservation and



then 12 years at Simon Operation Services. He helped manage the Hartford Department of Public Works for the next six years before moving to the City of Winooski, where he has been the Utility Manager for the last six years. He plans to retire at the end of this year.

John's passion for his work is evident in the numerous projects he has spearheaded that have resulted in tangible improvements to infrastructure and water quality at the facilities where he worked. In our interview for this article. John reflected on his career and noted that one of his proudest achievements was rebuilding Hartford's infrastructure following Tropical Storm Irene. When the Quechee covered bridge and its river crossing were destroyed, and three pump stations were flooded, John and his team worked tirelessly to get the system operational again in just days.

John's favorite part of the job has been "designing and building improvements to so many facilities throughout the state," he said. His least favorite, though? "Building improvements that didn't work out as designed!" John's humility, his ability to learn from others, and his propensity for sharing his knowledge are what make him an invaluable member of Vermont's community of water professionals.

Over his decades of service in the field, as John's experience grew, so did his leadership qualities. John fostered a collaborative spirit within the industry and emerged as a natural mentor, always willing to share his knowledge and expertise with his colleagues.

If you are lucky enough to have worked with John, you may have already been given this advice, but if not, here is a bit of John's accumulated wisdom:

- 1. Understand how the many mechanical systems work. Improve upon them if needed and maintain them like they are yours.
- 2. Learn from mentors and coworkers.
- 3. Learn all aspects of the business-don't focus on just a few things.
- 4. Get water and wastewater certified!
- **5.** Don't wait for a pat on the back, but be sure to give them out when deserved.
- **6.** Appreciate and get involved with the vast resources at Vermont Rural Water Association, GMWEA, and regional and national associations.



John Choate at a tank installation in Berlin in 2012-2013.

When asked what has kept him motivated in a job that is hard and often thankless, John replied, "Motivation comes from knowing your upgrades and efforts spent improving systems will be in use protecting the environment for many years." John proudly stated in our interview: "I feel fortunate to claim the status of an environmentalist every day."

The Tony Torchia Award is a fitting tribute to John Choate's remarkable career. John's legacy will continue to inspire future generations of water treatment professionals as they strive to ensure Vermonters have access to clean, safe water. We congratulate John Choate on this well-deserved recognition and thank him for his exceptional service to Vermont's drinking water and wastewater industry.

In his retirement, John and his wife will be skiing many resorts in the US and Europe with friends, and spending the shoulder seasons in the Dutch Antilles island of Curacao. He says that they'll "keep a Vermont presence, [becausel summers on Lake Champlain at Willsboro Bay can't be beat."

Enjoy the water, John, and here's the pat on the back that you deserve!



» CONTINUED FROM PAGE 3

Congratulations are also due to the City of Montpelier, the winner of the Vermont Drinking Water Taste Test. They will go on to participate in the Great American Water Taste Test in Washington, D.C. next winter.

And in a second win for Montpelier, wastewater facility staff Jeremy Lewis and Matt Lamson were part of the winning team in our golf tournament on May 8. And a shout-out to Kevin Desjardins from DN Tanks, who won both longest drive and closest to the pin.

Clockwise from top left: Jeremy Lewis and Matt Lamson, part of the winning golf team; Geoff Wilson and Colby Cubit from the City of Montpelier after winning the Drinking Water Taste Test; ANR Secretary Julie Moore; Ashley Lucht teaches a class about project financing; vendors at the luncheon; Noah Fleury and Phillip Combs at the golf tournament.











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Left to right: Forest Anderson, Ken LaCasse, Susan Poe, Wayne Graham, and Elijah Lemieux at the Hardwick Wastewater Treatment Facility.



Liz Royer (center) and Allison Smith (second from right) with the delegation from Egypt.

Vermont Rural Water Hosts Visitors from Afar



by Liz Royer

Executive Director

Vermont Rural Water was honored to host two very different groups this spring. First, from Duncan, Oklahoma, National Rural Water Association Wastewater Program Manager Susan Poe visited Vermont from March 24-27. She had conversations with many wastewater operators and system officials around the state about process control, rate structures, and workforce issues and was also able to observe one day of the Basic Wastewater Course in Chester.

Susan was very moved while listening to the stories of the July 2023 floods at our wastewater facilities. She was impressed with what has been accomplished at many treatment plants with very little in terms of budgets, personnel, and new equipment. As we all know, Vermont's Yankee ingenuity has served us well!

A huge thank you to the wastewater facilities who provided tours to Susan: St Johnsbury, Bradford, Hardwick, and Johnson.

On May 2, Vermont Rural Water hosted a delegation from Egypt organized by the Vermont Council on World Affairs. The five participants travelled to the US to study the impact of climate change on water scarcity. The group included a civil engineer, meteorologist, GIS Director, Technical Officer,

and an Assistant Minister for Nile Water. After Vermont, the group visited Maine, Texas, and Colorado.

Similar to Vermont, climate change in Africa is expected to alter the frequency and intensity of extreme weather events such as

floods and droughts. I talked to the group about Vermont Rural Water, facts on the state's community water and wastewater systems, and impacts of the summer 2023 floods. The Egyptian delegation had some very interesting questions and were impressed by how much Vermont Rural Water accomplishes with a small staff of 11. They called our organization "very effective," which may have to be our new tagline!

Planning

Design

Permitting





East Middlebury, VT 802.382.8522 Rutland, VT 802.747.3080 www.OtterCrk.com

Civil and Environmental Consulting Engineers

Training Calendar

Summer 2024

| Date | Course | TCHs | Location | Cost (Member/Non) |
|--|--|---------------|--------------------------------------|---|
| Tue, July 9 9 am – 1:30 pm | Traffic Control Certification | 4 W WW | Essex ¹ | No cost |
| Wed, July 10 9 am – 12:30 pm | Asbestos Pipe Handling | 3 W WW | Zoom | \$21 / \$42 |
| Tue, July 16 9 am – 12:30 pm | Generator Maintenance New Class! | 3 W WW | Montpelier ² | \$21 / \$42 |
| Wed, July 24 9 am – 12:30 pm | Corrosion Control & Polymers | 3 W WW | Hybrid (Zoom/Essex ¹) | No cost |
| Wed, Aug 7 9 am – 12:30 pm | Trench and Excavation Safety | 3 W WW | Zoom | \$21 / \$42 |
| Wed, Aug 14 9 am – 12:30 pm | Cybersecurity & Internet Safety | 3 W WW | Zoom | No cost |
| Sep 4 to Oct 24 8:30 am – 3:30 pm | Class 4 Water Treatment Course | 48 W | White River Junction ³ | \$345 / \$681 Textbooks sold separately |
| Sep 5 to Oct 23 8:30 am – 3:30 pm | Water Distribution Course | 36 W | Essex ¹ | \$252 / \$504 Textbooks sold separately |
| Sep 17 to Oct 22 8:30 am – 3:30 pm | Class 3 Water Treatment Course | 36 W | White River Junction ³ | \$261 / \$513 Textbooks sold separately |
| Tue, Sep 24 9 am – 12:30 pm | Hydrants, Valves, Taps, and Meters New Class! | 3 W | Barre ⁴ | \$21 / \$42 |
| Thur, Sep 26 9 am – 12:30 pm | Developing and Updating Your Source Protection Plan | 3 W | St. Johnsbury ⁵ | No cost |
| TCH = Training Credit Hour W = Approved for Water Credit WW = Approved for Wastewater Credit | | | | |

Locations

- 1. Essex: Vermont Rural Water's office 20 Susie Wilson Rd, Suite B, Essex Junction, VT
- 2. Montpelier: Association of General Contractors 1 Graves St, Montpelier, VT
- 3. White River Junction: Hartford Area Career and Technical Center 1 Gifford Rd, White River Junction, VT
- **4. Barre:** EJP Office 2318 Airport Rd, Barre, VT
- **5. St. Johnsbury:** VT DEC Regional Office 374 Emerson Falls Rd, Suite 4, St. Johnsbury, VT

Register Online: vtruralwater.org/training

Registration and Payments

Register online at vtruralwater.org/training to pay by credit card or check, or mail in the form below. Registrations received less than 24 hours prior to class are subject to a late fee.

Members of the Vermont Rural Water Association receive a 50% discount on most registration costs.

Accommodations

Call 802-660-4988 or email info@vtruralwater.org prior to the day of class to request accommodations.

Cancellations/Refunds

Cancellations received at least 24 hours in advance can receive a refund or transfer to another class. No-shows will be charged the full course fee.

Sick Policy

We ask that if you have symptoms of a contagious illness (Covid, flu, or other) you please do not attend classes in-person. If you are ill on the day of class, we will work with you to find a remote attendance option or switch to another class on a different day.

Exams

Water operator certification exams are offered on paper twice per year and computer-based exams are offered by appointment at PSI testing sites. Wastewater operator exams are only available on computers at PSI testing sites. The only testing site for water/wastewater exams in Vermont is in South Burlington (265 Aviation Ave). You can also take an exam at out-of-state test sites (such as New Hampshire, Massachusetts, or New York), where wait times are generally shorter. Find information about how to register and what to expect during a computer-based exam at bit.ly/psi-exam

Register Online: vtruralwater.org/training

| Registration Form | Duplicate this form to register for multiple classes. |
|--|---|
| Course and Date: | |
| Attendee Name(s): | |
| System/Organization: | |
| Billing Address: | |
| | |
| Email: | |
| Phone: | |
| (number where you can be reached the morning of class) | |
| Payment Enclosed: | |

Mail this form and payment to: VRWA

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Questions?

info@vtruralwater.org (802) 660-4988

Winter Freeze Causes Major Problems in **Middlebury**



by Aaron Perez Water Systems Specialist

inters brings its own challenges in Vermont. This winter, Middlebury experienced one worst of the cold weather scenarios a water department can face.

In late January, Vermont had a series of nights with sub-zero weather, which caused a hydrant with water in it to freeze. The freezing water broke the coupling and pressured the operating rod. When the water started to thaw on the morning of January 22, the pressure blew off a large port on the hydrant, causing the hydrant to run wide open for several minutes before slamming shut.





John Trombley (left) and Brian Murray of the Middlebury Water Division.

The abrupt shutting caused a massive 200- to 400-psi pressure surge through the system. This "water hammer" caused 33 water leak events throughout the town.

According to John Trombley, Middlebury's water division chief, "We had several large and small water transmission main leaks, blown meters and blown out valves as well as three damaged hydrants. As time goes on we are locating several more small leaks."

While the costs of this largescale event have not yet been fully totaled, it is safe to assume that the price of parts, labor, and water loss will exceed \$1 million.

Middlebury's water department has only two staff at the moment: John and Brian Murray, an apprentice in Vermont Rural Water's Apprenticeship Program. As the event unfolded,

they realized that the scope of the damage would require extra workers. Fortunately, they have strong relationships with reliable contractors who could be counted on to serve the town well. Vermont Rural Water also sent two staff who spent several days providing leak detection services on the non-emergent leaks.

"At any given time, we were doing as many as five repairs, running as many as three crews at a time," John said.

Delivering clean water is always an important responsibility for a water system. However, during an extensive emergency like this, the town had to prioritize repairs. "All calls for loss of service are extremely important," John said, "but during this event we prioritized service to the hospital, then the critical transmission lines to keep water going to the reservoir, and then the individual water services."

When we asked John about lessons learned from this event, he emphasized communication. With only two staff, it was very hard to notify up to 200 homes and businesses about changing circumstances during the large scale of multiple events that were happening.

In response, they are now working with the town's director of operations to set up a texting service to communicate with users more immediately and effectively during emergencies. This not only frees up the team to focus on restoring service, but also gets the message out quickly.

There is no easy way to be ready for massive events like this. However, there were things in place in Middlebury that eased the stress of the event. First, Trombley feels fortunate to be wellsupported by the town and the director of operations, who were responsive during the event.

"The best advice I can provide is to maintain good communication with management," John said. The strong relationship John has with town management



A hydrant in Middlebury.

The best advice I can provide is to maintain good communication

- John Trombley

improved outreach to the community, engagement with outside contractors for risk assessment, and support from other town departments.

Additionally, during the Covid-19 pandemic, John increased his stock of back-up equipment due to supply chain shortages. Because of this, they were able to do 95 percent of repairs quickly with stock they already had on hand. "Without the added stock that we had, we would have never been able to do the repairs," John said.



Well-Trained Operators Begin with the Mentor



by Paula Jackson Apprenticeship Coordinator

s I approach my 40th year in the water resources field, I am reminiscent of how I was taught operation and maintenance of water treatment and distribution systems as well as wastewater collection and treatment systems. The process of training new operators has not changed much at all, except that apprenticeship is now an option.

I was lucky enough to go through an eight-week Air Force Technical School to become an Environmental Support Specialist. I received 40 hours per week of education on water and wastewater systems, pools, grease traps, and oil/water separators. It was a great educational start in our profession. After tech school came on-the-job training—which still continues today. We are always learning in our profession. It truly takes a dedicated person to be a water or wastewater operator!

As Vermont Rural water approaches the five-year mark of our Apprenticeship Program, I can't help but to think how much more support the new generation of Apprentice-Operators are receiving to keep up with the evolution of regulations and the wrath of climate change.

Gone are the days of operating your facilities the way it's always been done. The new generation of operators needs to learn how to operate and maintain their facilities in a proactive and optimized manner. In order to accomplish



Students and instructors of the winter session of the Basic Wastewater Course in Montpelier.

this, they need to be well educated and have like-minded mentors to guide them.

Mentors are seasoned operators who are responsible for the dayto-day training of an apprentice at a water or wastewater facility. While one person serves as the official mentor, other experienced coworkers also provide mentorship to new apprentices.

Together with their mentor, apprentices get to know their facilities and start asking, "How can we do this better? What can we do to get ahead of climate change? How can we be safer?"

The Apprenticeship Program supports new operators with 288 hours of education plus 4,000 hours of on-the-job training. This usually takes two years. The program builds confidence for both the apprentice and the mentor. who now takes on a new role as a teacher. Mentors often find that teaching an apprenice builds their own knowledge of their facilities.

We are finally starting to see more workers in the water resources profession. Since the start of 2024 alone, there have been 41 operators taking the Basic Wastewater Course and a total of 29 in Class 3. Class 4. and Distribution water courses. That is a lot of new operators in this field!

Having a team of educated, enthusiastic and dedicated professional operators at your facility can sometimes feel like an impossible dream. Apprenticeship is a big step in that direction. Apprenticeship can bring your team together as you all become mentors and provide on-the-job training for the new worker.

If you would like more information on Vermont Rural Water's Apprenticeship Program, please contact Paula Jackson at piackson@ vtruralwater.org or Allison Smith at asmith@vtruralwater.org.



Disc Golf Tournament

Quarries Disc Golf Course Starting at 8:30 am

Lunch

Celebration Barn at Millstone Hill Starting at 11:30 am

Water Professionals Appreciation Day



Free!

July 19 Barre, VT

RSVP

vtruralwater.org/2024-appreciation-day







Celebrating Drinking Water Week

ater is magic. That was the theme of this year's Drinking Water Week, celebrated in Vermont on May 12–18, 2024.

Over 100 people attended the Drinking Water Week Fair, a field trip for students in grades 4 through 6 at Norwich University. Students rotated between stations including hands-on activities, an obstacle course, and a magic show, to learn about water treatment, conservation, and career opportunities.

There was also an artwork contest for students to design posters reflecting the theme, "Magic of Water."

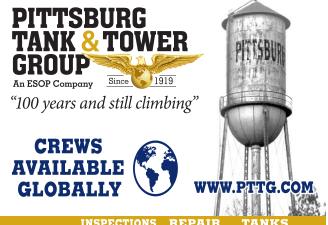
All of this was organized by the Vermont Drinking Water Week Committee, a volunteer-run group of operators, consultants, engineers, technical assistance providers, and other industry professionals.



This page, top to bottom: students learn about erosion with a stream table, students participate in a magic show, volunteers who made the field trip possible.

Opposite page: winning posters and some of the honorable mentions.













4th grade winner from Fletcher Elementary School



5th grade winner from Pownal Elementary School



6th grade winner from Northfield Middle & High School



4th grade honorable mention from Fletcher Elementary School



6th grade honorable mention from Pownal Elementary School



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