NewsLeaks

Vermont Rural Water Association

Fall 2021

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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: Repairs begin along an exposed water line in Manchester. Photo by Eric Severance.

Close Call for Manchester's Water Line

by Aaron Perez
Water Systems Specialist

Between July 29th and 30th, the town of Manchester (**VRWA Member**) received 6 inches of rain overnight and experienced the worst flash flooding the region has seen since Tropical Storm Irene in 2011.

Eric Severance and Roger Sheehan, Manchester's Water & Sewer Superintendent/Chief Operator and Senior Operator, respectively, quickly responded to the flood. They checked on the pump stations, well house, wastewater plant, and other town infrastructure.

They learned that approximately 350 feet of main transmission water line that is connected to water storage tanks was impacted by flood damage to Rootville Road.

After Irene, a culvert on the storage tank road had been replaced and upsized. This larger culvert was still not sufficient to handle July's flooding, and the brook overflowed and caused significant damage to the road.

The erosion completely exposed the water line. It was now only connected to the ground in spots where the gravel had miraculously held underneath the bell joint and around some large boulders.

After the rain stopped, the real work began. Not wanting to interrupt water service to the town, Eric, Roger, and a local contractor brought in new material and carefully re-bedded the pipe. They're still working hard on storm damage repairs and should be commended for their quick and effective response.

Flood damage exposed the town's water main. Photo by Eric Severance.

Vermont will see more of these severe weather events in the future, and we need to be as prepared as possible to respond to them. We need to plan for now, before an emergency hits. Some takeaways from the flooding in Manchester include: make sure you know where all of your system's valving is, perform regular valve exercising, review emergency protocols for flood-damaged wells and other infrastructure, and have alternative ways to access to your infrastructure if roads are blocked or washed out.

YANKEE INGENUITY

by Wayne Graham
Wastewater Specialist

This column details clever solutions invented by Vermont's water and wastewater professionals.These money-saving, stress-reducing hacks might make life at your second home—the treatment plant—a little bit easier.

Fast Thinking

The crew at the Randolph WWTF (**VRWA Member**) are always trying new things at their facility. Using two speed limit signs and a rope/hinge system, they've created a contraption to assist with distributing de-watered sludge cake into the roll-off dumpster.

A Question of Digestion

We have quite a few anaerobic digesters in Vermont, I'm a big fan of them. What other process can make half of your sludge disappear!? Plus the methane produced can be used for heating the digester contents and facility buildings, and even producing electricity through co-gen.

Staff at the town of St. Johnsbury (**VRWA Member**) got sick of fighting with gas compressors and switched to a mechanical mixer with great results. They also installed a new high efficiency methane/fuel oil boiler so they can burn "free" methane instead of fuel oil.

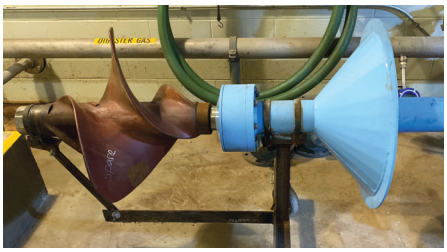
Proper process control is important for digesters to operate at peak performance and efficiency. Here are some tips to ensure maximum benefits:

•Take samples from the top, middle and bottom of digesters. Solids tests on each of the 3 sample points in the primary digester will show if you have uniform mixing, which is critical to proper operation, volatile

sludge reduction and methane formation. Visual observations and solids tests at the 3 points in the secondary digester will show the supernatant/solids separation point allowing you to control the sludge blanket level and avoid sending sludge back through the plant.

•Don't rely on digester pH readings alone. At least weekly, perform a volatile acid/alkalinity test, which will warn you of an impending upset much sooner than pH.

•Avoid adding large volumes of sludge all at once. Pumping should be spread out in small amounts over 24 hours. A simple timer on the sludge pump works great.



Prop end of St Johnsbury's digester mixer.

•Test volatile solids of both incoming sludge and sludge being removed from the digester to find the volatile reduction you are achieving.

•Keep your primary mesophilic anaerobic digester at a constant 35 degrees Celsius (95 degrees Fahrenheit) to keep the methane-forming bacteria happy.

If you have interesting ideas that you want to share, send them to me and we will include them in future issues. I also encourage you to visit other facilities and share ideas; you will find that networking with other operators can be very beneficial. Several organizations can also help: VT WARN, GMWEA, Vermont's Watershed Management Division, and of course, Vermont Rural Water!

Stay safe out there, we need you!

Training Calendar

Fall 2021

Date	Course	TCHs	Cost (Member/Non)
Tue, Oct 5 9 am – 10 am	Cybersecurity for Water and Wastewater Operations	1 **W WW**	$6 / $12
Oct 5 – 26 9 am – 2 pm	Small Systems Class 2 Water Operator Certification Course	16 **W**	$96 / $192 Textbook sold separately
Oct 13 & 14 9 am – 12:30 pm	Wastewater Microbiology: A Monitoring Program for Operators	6 **WW**	$36 / $72
Wed, Oct 20 9 am – 12:30 pm	Troubleshooting SBRs	3 **WW**	$18 / $36
Tue, Oct 26 8 am – 12:30 pm	Confined Space and Lockout Tagout	4 **W WW**	$24 / $48
Thur, Oct 28 9 am – 2 pm	Small System Class 2 Exam Prep Course	4 **W**	$24 / $48
Tue, Nov 2 8 am – 11:30 am	Electrical Safety in the Workplace	3 **W WW**	$18 / $36
Tue, Nov 2 9 am – 2 pm	Exam Prep for Class 3, 4, & D	4 **W**	$24 / $48
Tue, Nov 9 9 am – 2 pm	Discharges from Breweries and Food Industries to Your WWTF	4 **WW**	$24 / $48
Wed, Dec 1 9 am – 12:30 pm	Basic Excel Course	3 **W WW**	$18 / $36
Thur, Dec 2 9 am – 11:45 am	Pathogens in Wastewater	2.5 **WW**	$15 / $30
Tue, Dec 7 9 am – 12:30 pm	Proper Laboratory Sampling Procedures and Protocols for Water and Wastewater	3 **W WW**	$18 / $36
Dec 8 & 9 9 am – 12:30 pm	Wastewater Odor Production and Control	6 **WW**	$36 / $72
Tue, Dec 14 9 am – 12:30 pm	Corrosion Control and Polymers	3 **W WW**	$18 / $36

TCH = Training Contact Hours **W** = Approved for Water Credit **WW** = Approved for Wastewater Credit

Register Online: VTruralwater.org/training

COVID-19 Notes

All classes will continue to be online through Zoom. Find information about using Zoom at vtruralwater.org/training/webinar-trainings

DWGPD and OPR are accepting online trainings for TCHs for operator certification. Attendees will receive a certificate of TCHs by email after class.

Certification exams for Class 2, 3, 4, and Distribution operators are now being offered online. Find more information and register for the exam at dec.vermont.gov/water/drinking-water/pwso/operator-exams

The Wastewater Program is currently offering exams online. The paper exam is anticipated to be offered in the fall or early winter. Watch for an announcement or check the OPR website.

Registration and Payments

Register online at VTruralwater.org/training to pay by credit card or check. You can also register by mailing in the form below with a check. Please register early; registrations received less than 24 hours prior to class are subject to a late fee.

Members receive a 50% discount on registration fees for all employees.

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.

Accommodations

We strive to make our classes accessible to all. To discuss concerns or request accommodations, call 802-660-4988 or email info@vtruralwater.org

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
20 Susie Wilson Rd, Suite B
Essex Junction, VT 05452

Questions?
info@vtruralwater.org
(802) 660-4988

Where have all the operators gone?
Retirement Planning for Systems

by Matt Guerino
Training Coordinator

I know we all have had a challenging year and a half. Some have had more challenges than others, and some are ready to move on to the next chapter in life. Many systems are starting to take notice of operators who are nearing retirement age and perhaps thinking about no longer getting that emergency call at 1 am on a frigid January morning.

Recently, I have had conversations with operators about their succession plan. I know a few of you are smiling right now, thinking, "Matt, there's no plan for succession at my system!" I want to give you an example of what systems are doing right now as some of our very tenured operators are preparing to retire. (Yes, if you have talked to me about retiring, I have taken notes and I want to thank you for how openly you have shared your experiences.)

The first thing most operators are doing as they plan for retirement is to identify their skills as well as their coworkers' skills (if they have any co-workers). This is a good way to identify the tasks that could be taken over by co-workers and skills that the new employee will need to have or develop.

This leads us to the next part of succession planning: timing and training. How long does the new operator need to train under the retiring operator? This depends on the size and staffing level of your system, as well as existing qualifications of the incoming employee.

For example, a Vermont Class 2 Water Operator must train for 1½ years and pass the Class 2 exam before they can become a fully certified operator. If a system has multiple operators, one of the remaining employees could train the new hire after an operator retires.

If a system's only certified operator is retiring, there are a few options as they plan for the future. They could hire an uncertified replacement at least 1½ years prior to the retirement of the current operator, or hire someone with an existing Class 2 certification at the time of retirement. Other popular options include hiring a certified contract operator or keeping the retired operator on as a contractor while the replacement trains.

As we lose some of our more seasoned operators to retirement over the next months and years, I implore those systems that have not started to think about succession planning to please do so. It doesn't have to be a long, drawn-out plan. It should be something that works for the system, identifies what the past operator(s) have done, and how the new operator will train.

To those operators who are leaving, we will miss you. Thank you for all your commitment and service over the years.

To those operators just starting, I think you will find that this career is fulfilling and never dull. Keep up the good work and I look forward to seeing you in classes!

Information about the American Rescue Plan Act from VLCT

This article is courtesy of the Vermont League of Cities and Towns.

On March 11, 2021, The American Rescue Plan Act (ARPA) was signed into law. It included more than $1.25 billion of Coronavirus State and Local Fiscal Recovery Funding for Vermont's state and local governments. The legislature and the governor have determined how more than $1 billion of state-allocated funding will be spent. Nearly $200 million—$78 million of municipal and $121 million of county ARPA money—will go directly to Vermont's cities, towns, and villages over the course of the next year. This is the first time since the early 1980s that the federal government has provided direct, financial assistance to local units of government.

City councils and selectboards will have discretion over how to spend these funds within the categories of eligible uses included in the U.S. Department of the Treasury's Interim Final Rule. All funds must be obligated by December 31, 2024 and spent by December 31, 2026. This protracted schedule gives local leaders plenty of time to be patient, thoughtful and strategic in the ways they use their money.

Understanding that many of Vermont's municipalities will need guidance and technical assistance in using their federal funds, the Legislature and Governor Phil Scott established the ARPA Assistance and Coordination Program at the Vermont League of Cities and Towns (VLCT) and hired Katie Buckley as the director to oversee it.

VLCT's dedicated ARPA webpage (www.vlct.org/resources/american-rescue-plan-information) contains information, resources, and tools to help municipalities spend and track ARPA funds.

Graphic by Vermont League of Cities and Towns

HOW CAN ARPA FUNDS BE USED?

There are four broad criteria for eligible uses of ARPA funds:

- **Respond to the public health emergency and its economic impacts**, including assistance to households, small businesses, and nonprofits, or aid to impacted industries such as tourism, travel, and hospitality

- **Support workers performing essential functions** during the COVID-19 public health emergency by providing premium pay to eligible workers

- **Provision of government services** to the extent of the reduction in revenue due to the pandemic relative to revenues collected in the most recent full fiscal year prior to the emergency

- **Make necessary investments** in water, sewer, or broadband infrastructure

A municipality may transfer funds to certain eligible entities, including special-purpose districts of state or local government, such as fire, water, or sewer districts.

ARPA funds may be pooled for regional projects provided that the project is itself an eligible use of funds and that the award recipients can track the use of funds in line with the reporting and compliance requirements.

WHAT WATER/WASTEWATER PROJECTS ARE ELIGIBLE?

Recipients retain substantial flexibility to identify those water and sewer infrastructure investments that are of the highest priority for their own communities. To help jurisdictions expedite their execution of these essential investments, the eligibility guidelines are the same as those for EPA's Clean Water State Revolving Fund and Drinking Water State Revolving Fund.

For example, wastewater infrastructure projects may include constructing publicly-owned treatment infrastructure, managing and treating stormwater or subsurface drainage water, facilitating water reuse, and securing publicly-owned treatment works.

Find eligibility documents for Clean Water and Drinking Water State Revolving Fund projects on VLCT's website.

HOW WILL FUNDING BE DISTRIBUTED?

The amount of local and county ARPA funding allocated to each municipality is based on population.

All funds will be distributed in two equal tranches. The first payment of the local money was sent in early August 2021 and the second will arrive around the same time next year. The first payment of the county money will be sent in September and the second will follow a year later (2022).

ADDITIONAL FUNDING

The State of Vermont received a substantial amount of ARPA money for water and wastewater projects. The state is in the process of drafting program guidance for this funding, which will be released in the fall.

In addition, the Infrastructure Investment and Jobs Act is making its way through Congress. If this massive piece of legislation is passed, it will bring additional dollars to Vermont to fund water and wastewater projects.

VLCT's advice to its members is: be patient, wait and see how all these other funding sources may benefit their municipality before committing their ARPA money. This will allow communities to think bigger about what they want to accomplish and stretch their ARPA dollars for broader impact.

MORE INFORMATION

Visit VLCT's webpage at www.vlct.org/resources/american-rescue-plan-information

Contact Katie Buckley, Director, ARPA Assistance and Coordination Program, at ARPA@vlct.org or kbuckley@vlct.org

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