

Financial Assistance for Water and Sewer Customers p.3



Training Calendar p.6-7

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: Paul Sestito helps Lunenburg Fire District 2 (**VRWA System Member**) with leak detection last year. Photo by Liz Royer.



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COVID-19 Utility Bill Assistance Program



by Liz Royer
Executive Director

Since the start of the COVID-19 pandemic in March, when businesses closed and many people were suddenly out of jobs, the financial sustainability of water and wastewater systems has been a concern. Operators have kept working and systems have continued to provide essential services to protect public health and the environment. But as customers have struggled to pay their bills, some utilities have been worried that they wouldn't have enough revenue to cover their expenses.

In July, the Vermont legislature established the Vermont COVID-19 Arrearage Assistance Program (VCAAP), using \$8 million from federal CARES Act funding to help customers pay overdue utility bills. However, due to an oversight, public water and wastewater systems were excluded from the program. Only utilities regulated by the Public Utility Commission—electric, natural gas,

landline telephone and twenty private water systems—were eligible.

Vermont Rural Water has been working with the Department of Public Service and Agency of Natural Resources over the past few months to correct this mistake. We are pleased that as of November 12, VCAAP has been expanded to include overdue drinking water, sewer, and stormwater bills. Customers of all water and wastewater utilities are now eligible for grants to cover bills that are overdue because of economic hardships caused by COVID-19.

Residential and business customers must apply by December 15 for a grant to cover eligible arrearages. For the purpose of this program, an *arrearage* is an unpaid bill that is more than 60 days overdue and incurred after March 1, 2020. The funding will be paid directly to the utility to cover the eligible portion of a customer's overdue bill.

Approximately 120 water and wastewater utilities have signed up to participate in the program. These utilities are responsible for reviewing their customer applications to determine qualifying

arrears. In addition, systems are being asked to assist with outreach to customers due to the short application window available for this program. Utilities can find information about the program at VTTruralwater.org/VCAAP

We are aware that billing cycles and program restrictions may impact the eligibility of your system's bills or your customers. In turn, this could be putting financial constraints on your system. Contact me at lroyer@vtruralwater.org if you have any questions or concerns and I will share these with our Congressional delegation.

Finally, we want to remind you that there is currently a moratorium on disconnections for all public water systems and municipal sewer systems. The moratorium was established by Act 92, Section 9, which was signed by the Governor on March 30, 2020. The shutoff moratorium is in place until the end of the State of Emergency—which is currently December 15, but likely will continue to be extended. Read more at VTTruralwater.org/covid-19-shutoff-moratorium 💧

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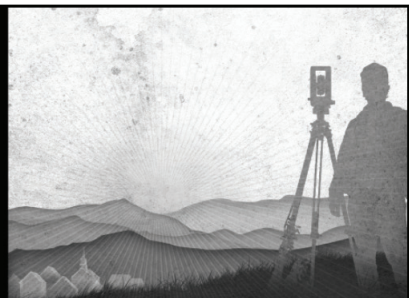
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What to Include in Your Drought Preparedness Plan



by Paul Sestito
Water Systems Specialist

While driving to visit water systems this summer, I have seen bottoms of rivers and streams and parts of shorelines of lakes and ponds that I haven't seen in my 20-plus years in Vermont. Drought has often been the topic of conversation at systems during the past few months, giving us a least a small break from discussing COVID-19. It's been quite a year.

The difficulty with weather events, such as drought, is that they often sneak up on us and leave us scrambling. The best you can do, since drought cannot be prevented, is to be prepared.

Having a written plan in place to deal with the effects of drought can aid in reducing negative impacts on the system and your customers. The plan should include steps that can be taken both before and during a drought.

When dry conditions have started but drought hasn't yet impacted your system, take steps such as:

- Customer education
- Restrictions to limit non-essential water use
- Source inspection
- Leak detection surveys

Once a drought occurs and the water system is impacted, it may be necessary to take additional steps to protect the system. These include:

- Implement more forceful water restrictions. Many water systems in more drought-prone areas of the country have written ordinances and impose fines for customers who violate water use restrictions.
- Bulk water may need to be purchased. If this is the case, your system should (in your written plan) have a list of bulk water haulers and ensure that your facility is capable of receiving bulk water shipments.
- You may need access to quantities of bottled water.
- Joining VT WARN allows you to request mutual aid, like equipment or assistance, from other water and wastewater systems.
- Consider other impacts that your system may experience during times of drought, such as water quality issues.
- Inform Vermont Rural Water of drought impacts your system is experiencing and action steps you've taken. Our executive director, Liz Royer, will bring this information to the Vermont Drought Task Force.

Having a plan and being prepared in all of these areas, and perhaps others, can help mitigate the effects of a drought on your system.

If your system has experienced difficulty during this latest drought, we would be interested in hearing from you.

We have put together a list of useful resources regarding drought planning and preparation at VTTruralwater.org/drought 

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Using Sodium Thiosulfate to Dechlorinate Effluent



by Elizabeth Walker
*Wastewater Systems
Specialist*

Disinfection of treated wastewater reduces the discharge of waterborne pathogenic organisms. This is done to protect public health as related to surface drinking water supplies and recreational use of downstream areas. Many Vermont systems use chlorine to achieve required disinfection of their effluent. In most cases, they must then dechlorinate so as not to have an impact on fisheries and aquatic biota in receiving waterbodies.

In Vermont, the most widely used chemical for dechlorination is sodium bisulfite. Metabisulfite is also used and comes as a dry product that is mixed in a day tank. Both of these materials are a safety concern requiring you to use proper PPE and ventilation.

It came to the attention of Wayne Graham and myself that in New York many systems use sodium

thiosulfate instead. We were familiar with this compound as a dechlorinating agent in bacteria sample bottles. As it turns out, it is widely used for dechlorinating wastewater effluent. Although no systems in Vermont use sodium thiosulfate at this time, its use can be approved by contacting your inspector from the VT Wastewater Management Program.


I spoke with a contract operator in New York who manages several wastewater treatment plants and converted all from sodium bisulfite to sodium thiosulfate. The reason for the switch was primarily safety but as an added bonus, it is also less expensive. Use of sodium thiosulfate does not affect pH.

They purchase the dry product in 50 pound bags and mix it with one gallon of water for every pound of dry material. For one of their systems that treats an average of 0.250 MGD, they use approximately 13 to 15 gallons per day. The material is crystalline, so it creates less dust than metabisulfite.

I also spoke to an operator at the Plattsburgh wastewater treatment

plant, where they have been using sodium thiosulfate as a liquid for the 20 years he has been working there. They are very happy with the product as it is odorless and poses no real safety concerns. He said their storage tanks are not vented to the outside and when they receive a load, only the slightest odor is noticed in the room. It comes in a variety of concentrations and he was not sure which they use. One thing to be aware of is that the liquid does have a limited shelf life.

I am told the liquid would be more expensive than the powder. It is recommended that you contact your supplier for pricing, delivery options, and assistance with selecting the best product for your application. I am aware that Slack Chemical (**VRWA Associate Member**), Allen Engineering (**VRWA Associate Member**), and Surpass Chemical have sodium thiosulfate available, and there may be others I am not aware of at this time.

If you are interested in speaking with the operators I interviewed for this article, please contact me at ewalker@vtruralwater.org 

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Training Calendar

Winter 2020–2021

Date	Course	TCHs	Cost (Member/Non)
Dec 8 & 9 9 am – 12:30 pm	Wastewater Odor Production and Control	6 WW	\$36 / \$72
Thur, Jan 7 9 am – 10:00 am	Liquid Phase Odor Control	1 WW	\$6 / \$12
Tue, Jan 12 9 am – 12:30 pm	Corrosion Control and Polymers	3 W WW	\$18 / \$36
Jan 12 & 13 9 am – 12:30 pm	Wastewater Microbiology	6 WW	\$36 / \$72
Thur, Jan 14 9 am – 11:15 am	Coagulation, Flocculation, and General Charge Chemistry	2 W WW	\$12 / \$24
Jan 19 & 20 9 am – 12:30 pm	Biological Nutrient Removal	6 WW	\$36 / \$72
Jan 19 – Feb 23 9 am – 1:30 pm	Advanced and Distribution Exam Preparation (Extended Class)	24 W	\$96 / \$192
Jan 20 – March 4 9 am – 1:30 pm	Advanced Class 3 & 4 Water Operator Certification Course	48 W	\$215 / \$420 Textbooks sold separately
Jan 20 – Feb 25 9 am – 1:30 pm	Distribution Operator Certification Course	32 W	\$145 / \$285 Textbooks sold separately
Thur, Feb 4 9 am – 1:30 pm	Keep Your Water and Wastewater Systems Sustainable	4 W WW	\$24 / \$48
Thur, Feb 11 9 am – 11:15 am	Use of Chlorination and Dechlorination Products in Water and Wastewater Facilities	2 W WW	\$12 / \$24
Thur, Feb 18 9 am – 12:30 pm	Optimize Your Water and Wastewater Pump Stations	3 W WW	\$18 / \$36
Mon, Feb 22 9 am – 12:30 pm	Affordable Control/Telemetry Systems for Water and Wastewater	3 W WW	\$18 / \$36
Tue, March 9 9 am – 12:30 pm	Corrosion Control and Polymers	3 W WW	\$18 / \$36
Thur, March 11 9 am – 11:15 am	Overview of General Water and Wastewater Treatment Chemicals	2 W WW	\$12 / \$24
Thur, March 25 9 am – 1:15 pm	Discharges from Breweries and Food Industries to Your WWTF	4 WW	\$24 / \$48
TCH = Training Contact Hours W = Approved for Water Credit WW = Approved for Wastewater Credit			

COVID-19 Notes

All classes will continue to be online through Zoom. Find information about using Zoom on our website.

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

Water operator classes 3, 4, and distribution certification exams will be offered online starting in 2021. The Wastewater Program is planning to offer paper exams; watch for an announcement or check the OPR website for information.

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

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 \$20 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.

Register Online: VTruralwater.org/training

Registration Form

Duplicate this form to register for multiple classes.

Course and Date: _____

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System/Organization: _____

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(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
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Questions?

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The Overburdened System



by Tim Russo
Water System Specialist

What is an “overburdened” system? This year, EPA is focusing on providing assistance to overburdened systems: those that serve low-income communities or populations that experience disproportionate harms and risks. As the EPA Training and Technical Assistance program manager at Vermont Rural Water, I have been tasked with identifying and assisting overburdened systems here in Vermont. Since mobile home communities fit this description, let’s begin there.

Mobile home communities face unique challenges in running their water systems. COVID-19 has only added to these concerns, making the emphasis on assistance to these overburdened systems, from EPA’s perspective, all the more timely.

A big challenge mobile home communities often face is a lack of a singular point of contact – one person (or board) that is familiar with all technical and financial aspects of the system.

Often, a contract operator does the monthly sampling and related reporting, but may not be looped in on financial or technical issues facing the system. Residents of the community may know the history of the water system and have valuable information to share. Groups such as the Cooperative Development Institute or ROC USA* may be involved if the community is working toward becoming—or has already become—a cooperative.

Should all of these voices be part of the conversation about the water system? Ideally, yes.


I continue to work on bringing the services Vermont Rural Water provides to the attention of all the parties mentioned above, as well as property management companies,

housing trusts, and appropriate state contacts. In doing so, I hope to better position Vermont Rural Water as a useful ally in uniting all these voices to help overcome the challenges these mobile home communities face.

While we are not emergency services or contract operators, don’t hesitate to call us and let us know what you need when it comes to any aspect of running your water system. We may be able to offer resources and guidance that you were not aware of.

It’s not just locating leaks, but we can do that too! 💧

*The Cooperative Development Institute (cdi.coop) and ROC USA (rocusa.org) are regional and national nonprofits, respectively, that provide assistance to communities looking to become cooperatives, as well as providing ongoing support.




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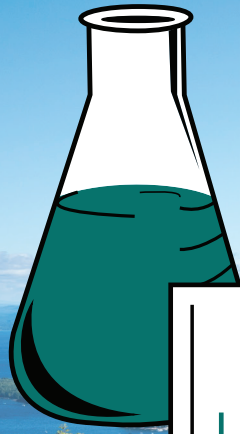
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Story and photos
by Diana Butler
Source Water Specialist

The Vermont Rural Water team loves a challenge. In our determination to help systems, we often resort to creative solutions. Aaron Perez and I recently visited the Fair Haven Water Treatment Plant (**VRWA System Member**) to investigate an unidentified flow in their raw water pipe tunnel.

Water had flooded the tunnel and was spilling out the only access point, a small hatch in the side of the bank. The raw water flow to the treatment plant did not show indications of a leak, but this flow was significant—approximately 15 gpm—and the operators were concerned. The tunnel was too dangerous for anyone to enter, as it is a confined space with hazards. So the team had to devise a way to inspect the inside of the tunnel and find the source of the leak.



Aaron initially thought a sewer camera would provide the best view. He improvised a flotation device made of soda bottles to keep the camera from sinking. Unfortunately the sewer camera could not be manipulated easily and was unable to provide an adequate view of the tunnel.



In the next attempt, Aaron decided to use his new submarine drone to explore the tunnel. Though the drone did provide better navigation of the tunnel, we were still unable to pinpoint the origin of the leak.

Drone's-eye view: footage of the tunnel from the submarine drone.



The project had some supervision from the locals.



When Aaron and I returned to Fair Haven, the public works department set up two pumps to remove water from the tunnel. Then we used a down-well camera attached to pipe to survey the tunnel. This was also unsuccessful, lacking the needed mobility.

Eventually the pumps dropped the water level enough that, using a spotlight, we discovered the source of the flow. The head wall itself was leaking water from the pond into the tunnel. Plans to repair the head wall have been initiated. The team's inventiveness kept everyone safe. 💧

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