**NTNCs**
Paul Sestito, Water/Wastewater Systems Specialist

How often do you consume water at home? If you think about it, much of the water consumed by you and your family is consumed away from home. If you travel or dine out, you may be getting water from a hotel or restaurant. If you have children in school, they may be getting their water there.

The majority of water systems throughout Vermont (and the United States) are non-community water systems. Non-community water systems can be either non-transient, non-community (NTNC) or transient, non-community (TNC). An example of a NTNC water system would be a school, serving the same population, but not for the entire year. An example of a TNC water system would be a restaurant, serving a differing population on a daily basis. These “smaller” systems basically serve populations that are different in terms of number and frequency.

Since starting with VRWA in June 2014, I have spent the majority of my time working with the people who own and/or operate non-community water systems. What I have found is that they, like operators of community water systems, are dedicated individuals who realize their roles in the protection of public health by providing safe drinking water to their consumers.

(Continued on page 5)

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**Lake Day at the Statehouse**
Liz Royer, Source Protection Specialist

On February 18th, Vermont Rural Water had the privilege of being invited to take part in Lake Day at the Statehouse. This two-hour summit included fifteen speakers who provided a variety of perspectives on water quality to the Vermont General Assembly. News reports called this event a rare occurrence due to both the House and the Senate being called to full committee. Liz Royer, VRWA Source Protection Specialist, spoke on behalf of our state’s public drinking water systems while Chris Robinson, President of the Green Mountain Water Environment Association, shared thoughts from wastewater systems. Here is the text of VRWA’s remarks:

Good morning. My name is Liz Royer and I have been working on protecting sources of drinking water at the Vermont Rural Water Association for the past ten years. Since 1982, our non-profit has been providing training and onsite technical assistance to public drinking water and wastewater systems statewide.

My job and my passion involve protecting our drinking water sources – including watersheds and aquifers across the state. Our public water systems provide clean, safe drinking water to over 375,000 Vermonters, and a few flatlanders too. Across the state, 47 of our water systems draw from surface waters, such as Lake Champlain, Mendon Brook, May Pond, and the White River.

(Continued on page 7)
Re: Chimney Hill Owners Association, Inc.

Dear Mr. Fielder,

I would like to take this opportunity to thank all those at Vermont Rural Water Association (VRWA) for all they do for water systems throughout the state of Vermont; and especially Chimney Hill.

Recently Liz Royer assisted us in completing our State of Vermont required Source Protection Plan update. Liz’s expertise, professionalism, and commitment to this project was without equal and much appreciated. You, and we, are fortunate to have someone of Liz’s capabilities working for VRWA.

Vermont Rural Water Association has supplied our water system and those throughout the state (both large and small) with the needed technical assistance, training, and source protection planning to assist in all aspects of assuring potable water to our customers. I can attest by personal experience that without the assistance of Vermont Rural Water Association we would have difficulties in meeting requirements without the professional help and guidance of your experienced staff.

Chimney Hill will always be a supporter of VRWA and please contact me if I can assist you in any way.

Sincerely,

Kenneth Spicer
Executive Director
Rural Water Rally 2015
The week of February 9th, Ed Savage (VRWA President) and Shaun Fielder took part in the annual Rural Water Rally in Washington D.C. Rural water affiliates from all over the country were taking part to continue to advocate for technical assistance, training program, and source protection planning funding with given Congressional offices. Our visits with contacts in Congressman Welch’s office and Senator Sanders’ office went very well and we were lucky enough to have some face time with Senator Leahy. During the rally debrief, many states—as was the case with us—were reporting positive feedback from Congressional contacts. The final budget amounts are to be determined in the coming months and thank you to Senator Leahy, Senator Sanders, and Congressman Welch for their ongoing support of Vermont Rural Water Association and rural water program funding.

Annual Conference and Trade Show
We are looking forward to another exciting Annual Conference and Trade Show on May 6 & 7 at the Lake Morey Resort in Fairlee. Please see registration information included in this issue and additional information on our website. This year’s event focuses on “Building Sustainability in Your Community.” A full set of very timely training topics will be offered for all attending. VT DEC Commissioner Mears is invited as our business luncheon speaker and, given all the water sector discussions recently, we look forward to an update direct from VT DEC leadership. We are also very excited to be collaborating with the Vermont Drinking Water Week Committee (Liz Royer and Matt Guerino from our team serve on the committee) on the Vermont public drinking water taste contest taking place the morning of May 7. Details are on our website. The overall winner will be entered into the NRWA Great American Taste Contest to take place at the February 2016 Rural Water Rally event in Washington.

Two other key points for the May event are reduced registration rates for our members and, for some additional fun, a meter toss contest. After this long winter, I am confident all of us are looking forward to this spring event, and for you golf players, please plan to take part in our golf tournament on Wednesday afternoon. We hope to catch up with many of you at the meeting and look forward to the positive exchange of information, a top notch set of vendor displays, and to most importantly share some face time with all of you.
This column details unique solutions to difficult problems that operation specialists come up with every day. Below are several cases of them solving large problems, saving money and making life at their second homes (treatment plants) a little easier.

My good friend Jim Irish of the Swanton WWTF was getting nervous about his 25 year old problematic ultraviolet disinfection system. Unfortunately the cost of an upgrade was going to be around $400,000. Jim did some research and found that Iron Brook Partners of Ontario was in the business of rehabbing old UV systems. Using the existing building and channels, they replaced controls, racks, bulbs and ballasts with new equipment. The final cost? $60,000. Now that’s saving money and staying in compliance!

As a lot of operation specialists know, lime stabilizing sludge prior to disposal can be messy, create respiratory hazards to operators and add solids to the final product. Chief Operator Tim Mills of Bethel has been using 25% sodium hydroxide to provide for pathogen reduction instead of lime for quite some time and has assisted other systems in swapping from lime. Swapping has saved the Town of Bethel money and even more importantly, time. Tim says to keep in mind that sodium hydroxide has its own hazards and needs to be handled with care and with the proper personal protective equipment.

Utility Partners LLC operations specialists at the St. Johnsbury and Morrisville WWTFs have huge wheel operated slide gates that require many turns to open and close. Cleaning chlorine contact tanks or swapping process tanks becomes very time consuming and labor intensive. St. Johnsbury operators use a portable Ridgid pipe threader and an adapter that their machine shop built for them to open and close the gates. Andy Jones, an operations specialist from the Morrisville WWTF used a different approach to operate his slide gate wheels, using a half inch cordless drill and a 6 inch pipe plug. He puts the rubber seal part of the pipe plug up against the wheel and operates the drill. Simple? Yup. Does it work? Yup.

Combine outside unheated electrical panels/enclosures with cold temps and moisture and you have a disaster waiting to happen. Operations specialists from the Shelburne WWTFs, Chris Huestis and Jeff Pillsbury installed 110 volt gun safe dehumidifiers that circulate warm dry air throughout the panels on a continual basis. Keeping door panel seals from freezing, switch gear from sticking and moisture at bay!

If you have interesting ideas that you want to share, send them to me; we will include them in News Leaks in the future. I also encourage you to tour 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, VT Watershed Mgmnt. and of course, VRWA! ☕

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**Yankee Ingenuity**

**Continuing Stories of System Innovations**

By Wayne Graham, Wastewater Specialist

**Photo:** Jim Irish from the Swanton WWTF

**Photo:** Tim Mills from the Bethel WWTF

**Photo:** Andy Jones from the Morrisville WWTF

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News Leaks, Spring 2015
What I have also discovered is that they often face challenges, some of which are similar to those of all operators, and some of which are not.

In many circumstances, operating a water system is not the primary area of focus of the operator at these systems. For example, if a school has a custodian or maintenance person on staff who is the designated operator, operations and maintenance of the water system is usually only one of the many duties performed by that person. Another example is the owner of an inn or restaurant, who has a number of different responsibilities, one of which is ensuring that the water system is properly maintained and operated. While it is true that many (but certainly not all) of these water systems are relatively small, and therefore easier to maintain and operate, it is also true that these systems must be operated and maintained properly, just like community water systems.

There are other challenges as well. Often times, the operators of these systems are the sole person on site responsible for the water system, with little or no backup or support. In many cases, the operators are not trained in the field to the extent that community water system operators are. Many TNC’s and NTNC’s operate seasonally, which can have an impact on the operation of their water systems. Finally, like everyone else, they struggle with issues such as budgets and aging infrastructure.

So, the next time you are dining out, on vacation, or dropping the kids off at school, remember that there is someone operating and maintaining a small water system with the same dedication and sense of pride that all of our community water system operators have.
Now that we are getting permits again, it is critical that you take a very good look at your draft permits as they come across your desks. You only have a short time to comment on changes that you are sure to see. If you need help putting together comments, contact your consulting engineer or Wayne Graham at Vermont Rural Water Association.

We are seeing additional testing requirements in draft permits that include in-stream monitoring, nitrogen, phosphorous, oil/grease, dissolved oxygen and total dissolved solids. Some of this sampling and testing can be very expensive and time consuming especially for small facilities with limited staff and staffing hours. If you have evidence to suggest that some of the proposed new testing may not be warranted, this should be addressed in your comment letter (write one!) Plants in the Long Island Sound watershed will see a new requirement for nitrogen removal optimization plans and will be tracking and submitting annual pounds of nitrogen discharged. Everyone will have to update existing Operation Management Emergency Response Plans and electric power failure plans.

Not following your permits can result in ticketing and fines, so pay close attention to due dates as well as to testing that you may not have had to do in your previous permit. Compare your current checklists against the new permit! If you do have a violation, it needs to be reported as directed in your permit. We are seeing 24 hours as a requirement now; if it occurs after hours, leave a voice message and send an email to your inspector detailing the violation.

In closing, read your draft permits and comment on them. If you have a new permit, read it from beginning to end and put those due dates on calendars.
If I drink eight glasses of Dasani bottled water (sold in the state-house cafeteria), it would cost me over $1700 per year. For the same amount of tap water from right here in Montpelier, the cost would be $1.55.

But there are also over 1200 public water systems that draw from our groundwater through drilled wells, dug wells, and springs. Protecting all of these public water sources, along with private wells, involves partnerships with many groups such as state agencies, municipalities, local watershed organizations, and the agricultural community.

My own drinking water comes from Lake Champlain through the Town of Williston and the Champlain Water District. By a show of hands, how many of you are served by a public water system? How many of you have a private well or spring? It shocks me how many Vermonters don’t know where their drinking water comes from. While water quality is often cited as one of the biggest public concerns, it’s surprising how many times drinking water isn’t part of the conversation for solutions.

Let’s look at the idea of drinking the recommended eight glasses of water per day. If I drink eight glasses of Dasani bottled water (sold in the statehouse cafeteria), it would cost me over $1700 per year. For the same amount of tap water from right here in Montpelier, the cost would be $1.55. **$1.55 for the year.** Treatment plants need to be upgraded and distribution pipes are deteriorating. But when clean, safe water is underpriced and undervalued, it makes it hard to gain the funds to keep the infrastructure working as it should.

Vermont’s tap water should be a source of pride. Several systems have won national awards for the great taste and quality of their drinking water.

One water system in Brandon undertook a lengthy effort to plan for the protection of its aquifer. This will preserve healthy drinking water for generations of town residents. A new brewery was even attracted by the fact that Brandon made groundwater planning a priority.

Remember the incident in Toledo last summer: blue green algae and cyanotoxins caused the city to tell half a million people to not use their water over four hot summer days. When trust in drinking water is broken like that, it’s difficult to convince people that their water is ever safe again. In Vermont, public water system operators monitor algal blooms and test their water when they see potential issues developing. This summer, we want to give the public the reassurance of additional surveillance and sampling, but resources are limited and that may hinder monitoring efforts.

Clean, safe drinking water is needed by Vermont families, Vermont farms, Vermont tourism, and Vermont industries. From beer to baby formula and granite counters to wood furniture, water is vital to many of our local manufacturing processes. Drinking water is not something that is going to go out of fashion. For generations before us and generations to come, clean and safe drinking water has been and will remain essential. In closing, I urge you to consider the following question: how will we provide a safe and sustainable source of water for the health of Vermonters and our state’s economy in future years?

Thank you for your time.
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