A publication of the Minnesota Rural Water Association

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SUMMER 2020

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MRWA MISSION
To provide the latest information, education, and technical assistance to protect our public waters and improve the quality of life in Minnesota.
Chairman’s Message
Les Anderson, MRWA Chairman

COVID-19 Update

MRWA remains committed to our members and wants you to know we are here for you during the pandemic. Our office remains open (Monday – Friday, 7:30am – 4:00pm) to receive phone calls at 800-367-6792 and emails at mrwa@mrwa.com. Some of our field staff are classified as essential workers and if it is deemed a necessary water or wastewater emergency, MRWA's technical advisors will go to your system to provide hands-on assistance.

You can find details related to our training event cancellations or postponements/rescheduled dates on the MRWA’s training calendar web page: http://www.mrwa.com/trainingcalendar.html. MRWA recognizes that these cancellations are disappointing for attendees, professionals, speakers, vendors, and all those who are prepared to share their valuable knowledge with our industry. We apologize for any inconvenience. Please continue to monitor the website link above for the latest on our training sessions!

And, as a reminder:
You can find general Minnesota Department of Health COVID-19 updates at this website: https://www.health.state.mn.us/diseases/coronavirus/index.html

MDH water operator FAQs and other information at: https://www.health.state.mn.us/communities/environment/water/pwscovid.html

MRWA water and wastewater system planning resources at: https://www.mrwa.com/covid19resources.html

September 14-16, 2020
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Support Our Industry Members!

When a city or rural water district needs products or services, **SHOP INDUSTRY MEMBERS FIRST!**

Industry Members support Minnesota Rural Water Association. For a current directory with contact, e-mail addresses, and Web site information for Industry Members, check out www.mrwa.com, use the membership tab on the menu bar.
Minnesota Rural Water Association and National Rural Water Association (NRWA) are pleased to announce that the partnership with Environmental Protection Agency (EPA) has produced a simplified checklist for small systems to utilize to comply with new risk and resilience assessment requirements under America’s Water Infrastructure Act of 2018 (AWIA).

This guidance is intended for small community water systems (CWS’s) serving greater than 3,300 but less than 50,000 people. Community water systems serving less than 3,300 people are not required to conduct risk and resilience assessments under AWIA, however, it is recommended that these systems use this, or other guidance, to learn how to conduct risk and resilience assessments and address threats from malevolent acts and natural hazards that threaten safe drinking water.

National Rural Water Association (NRWA) is the leading technical assistance provider for public drinking water and for providing immediate on-site emergency response in the United States. NRWA is proud to have provided the input and assistance through partnership with EPA to develop the small system checklist for risk and resilience requirements to keep our nation’s public drinking water safe and ready to respond.

For further assistance, contact Minnesota Rural Water Association to provide the on-site assistance needed to understand, perform, and comply with these risk and resilience requirements and to provide on-site recommendations to keep your water system compliant and operating smoothly. Minnesota Water Association is prepared to assist you at any time with the nation’s only genuine Circuit Rider program.

You can access the Risk and Resilience Checklist on our web site at: http://www.mrwa.com/awiaresources.html

Happy Retirement, Sue!

Congratulations and best wishes to Administrative Assistant Sue Grasamke who retired from Minnesota Rural Water Association on May 27th after 13 years of service! Sue was a vital part of MRWA’s training and membership programs and she will be missed! Enjoy your retirement Sue!
If you set the bar at competence,

how do you reach excellence?
WHEN YOUR TOWN IS COUNTING ON YOU, YOU CAN COUNT ON US.

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As all of us struggle through these uncertain times, there is time to reflect on work, neighbors, family, and friends. During this crisis, I have been in contact with many public water systems discussing emergency planning issues and updates. Everyone has been very kind and willing to share information during these phone conversations. Many of the contacts have shared their experiences about what has been taking place during the pandemic and what they are doing at work and home.

Everyone is washing their hands, using hand sanitizers, wearing gloves and personal protective equipment more than they ever have in the past. Most of the contacts shared the same comment, “It is hard to “not” touch your face. It’s nearly impossible!” Our water and wastewater professionals are cleaning and disinfecting counter tops, wiping down door knobs and even cleaning and wiping down their vehicle steering wheels and door handles. Who would have even thought about these habits a few months ago? Think about it: water and wastewater department staff wiping down, disinfecting, and cleaning up a work vehicle daily? Things we did not regularly do even a short while back.

During this time, we all have received a big wakeup call about our utility systems. There has been a lot of reflection, communication, and action in a very short period of time. Many questions were raised. Do we have the answers? Do we have plans in place? Are we prepared? What if…? What if something happens to you or your staff? Do you have a backup plan? Are you prepared? What if you or a staff member get quarantined for 14 days? Are you prepared? Is the water system prepared?

With every unique situation, it requires “tweaking” emergency plans and procedures. This situation is no different. While visiting with operations specialists, the common thread of the conversations was, “We are not sure that we are fully prepared for this.” We have had floods, tornadoes, boil orders, etc., but this makes us all question: “Are we prepared for an emergency”? What is our plan B?

What if someone gets sick?

The answer is having a Standard Operating Plan, (SOP) in place. This is a step-by-step operating plan of all the daily, weekly, and monthly activities, including the rounds and tasks that is on a schedule to be completed. An SOP is a written plan that details and explains your water system operation. The plan should be easy to follow with specific written directions in order to perform/complete the required tasks. The SOP should include a list of daily and weekly rounds and operational tasks that someone can follow. This SOP will help keep the water or wastewater system operational and running smoothly. It should include a list of meters that need to be checked, read, and recorded. Measure and monitor the amount of chemicals used and insure the equipment is working properly. Check and record any electric pumps with hour meters and flow monitoring. The SOP should have a list of what laboratory procedures need to be done and on what day. This list should include the step-by-step procedures and specific directions. The plan should indicate what samples need to be done each day, plus when and where the sample needs to be taken from. The SOP should explain what to do with each of the samples. The plan should include dates and times the samples need to be analyzed or if they need to be sent out to a certified laboratory. If the samples need to be sent out to a laboratory, the directions should list when and where to send the samples. The SOP should also include security information and updates, including buildings, office and gate locking instructions, turning on security lighting and activating alarm systems. Have a checklist readily available at different stations for recording information, dates and signatures. Start recording everything. Get a daily journal or log book and write everything down. This can become a very handy tool. Start recording daily notes of what took place each day, who was working, what broke or what was repaired and by whom. Record the costs, names of contractors, deliveries that took place and any issues or problems.
Minnesota Nice

Minnesota is known for being a friendly, neighborly state. The same holds true in an emergency or time of need. Neighbors helping neighbors in a time of need is the way we operate in Minnesota. Get to know your neighboring community water and wastewater staff. Reach out and start the communication. If you need assistance or they need some help, it is nice to know you can have a competent backup person or another city crew to help you out. Everyone thinks that they are not going to get sick or have issues, but we are only human. Things happen in life that we have no control over. Plus, with family and friends you just never know what tomorrow brings. Also, make sure you are a member of MnWARN. If not, get signed up ASAP by visiting www.mnwarn.org.

Update numbers

Update telephone numbers and have a current contact list available. Keep an updated list of phone numbers, emails, and landline phone numbers at your system and share information and copies with your staff. Cell phone numbers change and often times need to be updated. We are lucky to have good friends, neighbors, and coworkers. Reach out, say hello, and make new friends. It may help you someday along the way. Being prepared can make life a little less stressful. Stay Safe Everyone!

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Don’t Let Tragedy Strike

30 Around 30 people are killed each year from lightning strikes.

TOP 3 Sports-related lightning fatalities:
1: Soccer 2: Golf 3: Running

Never swim when lightning is in the area.

Seek Shelter
In a storm shelter or an enclosed building away from the path of lightning.

Wait 30 minutes
...after the last rumble of thunder before heading back outside.

Source National Weather Service, NOAA
With the COVID-19 pandemic among us, everyone’s life has been changed in one way or another. For me and a number of you, it’s how we do our jobs on a daily basis. Many aspects of it are the same as usual, while other aspects are probably a whole lot different.

The biggest change for me is how I continue to assist cities in writing a Wellhead Protection Plan without in-person meetings. I must admit, this has been a hard change for me. I really enjoy meeting and being around people, so having to do so virtually has been a challenge. Thankfully, today’s technology has made meeting virtually easier than it would have in the past.

So what tools, software, website, etc. are the best to use? My list is not all encompassing, although here are a few that we use: Skype, Go to Meeting, Zoom, Microsoft Teams, and FreeConference.com. Or, it can be as simple as a conference call or the use of FaceTime on your phone. All of these programs have their pros and cons, so it takes time using them to see what will work best for you. For me, I really like using Zoom. This is not an endorsement for them, although I have learned its functions and had fair amount of success carrying out meetings.

Sometimes we get intimidated by technology, but for the most part it is not difficult. When in doubt, go to YouTube and watch tutorials and within minutes you will have the basics down. As an example, I will discuss Zoom to show the simplicity. By the way, if your meetings are 40 minutes or less with less than 100 participants, you can use Zoom for free!

To get started, just google Zoom. Choose “Sign In” or “Create an Account”. To setup an account all you need to do is create a user name and a password. Once you are signed in you are able to explore all the options available. You are able to download the app on your phone and/or use a computer. As I mentioned before, watch a couple tutorials on YouTube and you will be amazed how easy it is to use! Another recommendation I have is to practice with a coworker or family member. You can setup a meeting with them, giving you both the opportunity to use the different functions that are available during a meeting. This is where the various functions play a role depending on the meeting you are needing to conduct.

For me, when it comes to the actual development of a Wellhead Plan, it is important that we are looking at the same document and/or map. When conducting a potential contaminant source inventory I usually show up at city hall or the city shop with a large map or my computer and projector. The aerial photo is very important when trying to figure out which potential contaminants are on which parcel. With Zoom, I’m able to share my computer screen so we are looking at the same map, giving us the ability to visually see the Drinking Water Supply Management Area. From there we able to properly inventory all the potential contaminants.

Aside from work, I have heard of some great opportunities to keep in touch with family and others using Zoom. A family I know now gets together every Sunday afternoon using zoom. Since they live in different states, even pre-COVID-19, they didn’t see each other much. Recently they had to cancel a family get together and decided to use Zoom. It worked so well they have decided to be better about keeping in contact. Some other examples are birthday parties, a baby shower and weddings.

We have had to change the way we do business in our personal and professional lives, which has pushed some of us out of our comfort zone. Thinking outside the box, being creative, and learning something new isn’t always a bad thing. Many times we are able to use those tools in various aspects of our life to become better and more efficient.
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Spring has sprung and summer will soon be in full swing. As I write this we are already a week into fishing season and that is evident with the massive number of people and boats I see travelling our roads. I personally can’t think of a better way to social distance than sitting in a boat on a beautiful Minnesota lake while wetting a line in search of my favorite fish species, the walleye! I plan on wetting a line this weekend and I can already feel the breeze coming across the lake and with it the smell of the fresh water below my boat as I drift over my favorite sand bar on “Mystery” lake. Fishing can make lifelong memories whether you are on a lake or river with your buddies or your family. To me, there is nothing better than watching a youngster catch their first fish. Fishing brings people together and puts millions of smiles on their faces (and that is something we desperately need right now). So if you get a chance, please take a kid fishing! Strike that… take anyone fishing!!

With spring comes a new training calendar full of training sessions for both water and wastewater operations specialist in the state. But, this year is different, isn’t it? COVID-19 has wreaked havoc on our elderly, our economy, and our everyday way of life. It has also put a damper on our training schedule that MRWA published earlier this year. Multiple training sessions have already been cancelled for April and May, and June/July is still hanging in the balance. And what will training sessions look like when we do resume? Will we have to limit the number of people participating in onsite training sessions? Will wearing masks and gloves be a requirement to attend? These are all questions that we will be working on finding answers to in the near future.

With this being said, operations specialist are required to maintain their license by attending different training sessions throughout the state or online to enhance their knowledge of the treatment and distribution process. With grant monies from the Environmental Protection Agency, Minnesota Rural Water Association is able to provide 12 onsite water training sessions per year across Minnesota to cover aspects of the Safe Drinking Water Act (SDWA). We focus on the operation and maintenance aspect of water treatment, distribution, process controls and regulations to name a few. With massive amounts of help from the Minnesota Department of Health and our corporate partners, we collaborate with instructors that bring with them a wealth of knowledge and many, many years of experience in the water industry. We are very grateful to have them as partners and the next time you attend a training session, please take a moment to thank them for taking the time to present to you. Please make sure to check out www.mrwa.com where we will keep updating our training schedule.

One thing’s for certain in these uncertain times: Water treatment has not taken a vacation...
NOW IS THE TIME TO ACT
Get Started on Your Water Utility Construction Project

Do you have a Water Utility Construction Project? Now is the time to act! Rates are at an all time low, and with the current pricing being opportunistic and taking action can result in benefits not only for your-self but for the customer as well. Consider the below items that detail positive reasons to act now that you can present to your governing body.

- Interest rates are at an all-time low.
- More project contractors are available, increasing the number of bids, potentially lowering project costs.
- Fuel costs are low, lowering pipe related costs.
- Most material costs for projects are down.
- Shipping costs for many have decreased.
- Road and water projects are easier to schedule due to decreased volume in traffic.
- Low construction costs and available contractors are not guaranteed to last.

USDA Rural Development is committed to helping improve the economy and quality of life in rural America. Offering loans, grants and loan guarantees are some of the ways Rural Development is supporting rural America.
During this unique time of the COVID-19 pandemic, our lives are not what they were before. The MRWA Circuit Riders and Wastewater Technicians are still able to respond to requests as before. One of the many differences that make our organization unique is the fact that we are able to provide on-site assistance when operations specialists need. This hands on, feet-on-the-ground approach is invaluable to many small systems that do not have the resources to complete a task or find a utility. We will continue to assist communities throughout this event when we are requested to do so.

This spring has been very busy with repairing broken fire hydrants. On our training calendar we have four different hands-on fire hydrant trainings sessions, with the first two being postponed for later this summer. At these training sessions, we will be completely disassembling different models and fixing anything that is wrong or replacing worn out components with new ones. The reason we want to have such trainings is to show operations specialists that a hard turning or leaking hydrant can be repaired rather easily with fairly simple tools. There are very few reasons that a hydrant should not be in proper working order or brought back to operation in a short timeframe. I've heard multiple systems tell me that they have never used certain hydrants because they don’t work. Every single hydrant should be exercised twice a year to ensure they work. Every time they are flushed, it should be documented and put into a file. The ISO score in your community will be affected with how you keep records. We will continue to discuss the ISO topic at all of our training sessions and keep you up to date on the new requirements on flow testing and documentation.

When we are requested to provide assistance with hydrants, we have the operations specialists do certain things. The first is to verify if there is an isolation valve for the hydrant, verify that it works, and that it does shut off the water to the hydrant. In the case where there is not an isolation valve and the hydrant cannot be shut down without impacting residents or businesses, we ask that you contact your MDH district engineer to let them know you will be shutting down a section of town for a repair. They may direct you to provide information to residents if the area is large enough. Often times they will thank you for the call and tell you to let them know if anything goes out of the ordinary. We also recommend that you let the residents know the water will be off for a short time when making the repair. This will usually save you the headache of dealing with a disgruntled customer. Most hydrant repairs go smoothly and are completed in a couple of hours.

I look forward to seeing all of you when things get back to normal. Please stay safe during this uncertain time.

For more information, call (800) 367-6792 or e-mail mrwa@mrwa.com

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Summer is in full swing and now is more important than ever to accomplish the necessary maintenance on your wastewater lagoon/stabilization ponds. Yes, I said maintenance! The upkeep is very important and very detrimental to your wastewater treatment system. Maintenance is underestimated and overlooked, but if neglected, will violate your NPDES (National Pollutant Discharge Elimination System) permit! Routine maintenance of lagoons, dikes, and control structures must be done regularly to preserve the life of the wastewater treatment plant. Here are 6 key Maintenance 101 tips I like to use when in the field on the major issues to help operations specialists avoid labor intensive maintenance and why they’re so important.

1) **Mow the Grass**  It’s as simple as that, not only does it make the treatment plant look nice, but it tends to keep away vectors, or animals, that may like to mess with the dikes. Grass is a great aid to prevent erosion and needs to be mowed and maintained at a short length. Farm animals might help in this maintenance, but not recommended.

2) **Rodent Removal**  We mostly see gophers and muskrats wreaking havoc to our lagoon dikes. An easy way to remove rodents is take away the vegetation rodents like. No food source, no rodents, so pull weeds, cattails, and small trees from the dikes and lagoons. Gophers make mounds with tunnels on and around the outer dike while muskrats build homes by burrowing into the dike walls and can cause failures to the liner/seal.

3) **Erosion Control**  With wind travel across pond systems creating a wave action, dikes can get undermining erosion. Rip rap, or rock, along the dike wall is a perfect solution to erosion along with vegetation and rodent removal. To remove vegetation in the rip rap, use a chemical herbicide or pull the vegetation by hand. Remember, when using herbicides to be sure that it’s a preapproved aquatic herbicide when spraying so close to the water.

4) **Submerged and Floating Plant Life Care**  We already talked about vegetation on the dike or in the rip rap, but many weeds or plants grow within the water. It can create a good living environment for plant life within a wastewater lagoon allowing plants to grow out of control. Submerged and floating plants can cause problems with treatment by up-taking oxygen mostly by not allowing sunlight to penetrate deep into the lagoon. Algae, coontail, cattails, and duckweed are the most common plants found in lagoons. These plants can also mix with sludge to create a floating mat that promotes odors and a breeding ground for insects.

5) **Control Structure Maintenance**  Control Structures are essential for setting the water level. Corrosion and leaking structures are the main issues found. Taking time to inspect the structure, lubricate the gates and servicing the valves are all key to long-lasting control structures. Proper air ventilation can help from corrosion in the structure as well. Leaking structures need to be fixed immediately.

6) **Barrier Signage Upkeep**  Wastewater lagoons are for treatment by creating old water. In doing, so the perimeter should be fenced off to keep people and livestock out, if possible. Signs 500 feet apart need to be visible to warn others about the wastewater treatment plant and no trespassing. A gate that can be locked at the entrance of the treatment plant and an up-kept road to allow access and maintenance is necessary. Maintenance is a key part to wastewater treatment, especially in a lagoon system. I hope this was a simple 101, or a refresher to keep your wastewater lagoon from going into violation. If you’d like to learn more about stabilization pond/lagoon maintenance, the Minnesota Pollution Control Agency has a great downloadable .pdf manual titled *Stabilization Pond Systems*, I suggest downloading and reading. Also, if you want to know more about protecting your lagoon from Muskrats, read Minnesota Rural Water’s own Lance Loverink’s article from last spring titled *Muskrat Control in Wastewater and Storm Ponds*, as Lance is a guru on the subject. And remember, if there’s anything wastewater you’re concerned about, or would like assistance with, please call me!
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Locating and sealing an unused well can be a lot like navigating through a scavenger hunt. Conceptually, you know what you are looking for... an unused well. And you know that it needs to be sealed. However, you might not know exactly what the well looks like or know where it is even located. Then, to top things off, how is a well properly sealed?

Let’s work through a virtual scavenger hunt together.

**Do you have an unused well on your property?**
So that we are all on the same page, let’s define what an unused well is. An unused well is a well that is not in use and is not properly sealed. Next, some of you may be thinking to yourself, “I live in town and have city water, why would I have a well on my property?” Even if you currently have city water services, a well could have been your home’s main source of water before city water became available. Or, maybe a well was installed to serve a secondary building or barn, or to water the lawn and garden. Wells tend to get “lost” when property changes hands.

Now that we are on the same page of what an unused well is, how does one know if they have an unused well? And, how does one find an unused well?

**How Do I Know If I Have an Unused Well?**
Now comes the fun part. You get to inspect your property. I suggest using the buddy system when doing this, though, and to use caution also. Better safe than sorry. Wells can be located either inside or outside a building.

The following are areas to inspect:
- Exterior steps
- Small room in the basement
- Low spots or sunken area in the ground
- Under metal, wood or concrete cover or manhole
- Areas that stay wet
- Windmill, old shed or well house
- Pipe that is sticking out of ground
- Old or abandoned homesteads.

So you found a well! CONGRATULATIONS. Now what?
Now that we are on the same page of what an unused well is, why is it so important to have the unused well sealed? Every unused well that is not properly sealed poses a safety, health and environmental threat to your family and community, as well as a potential legal risk to the homeowner.

After locating a well, determine the well use:

**Well in Use:**
Minnesota laws do not require a well that is in use to be sealed unless the well is contaminating the groundwater or has potential to cause human health problems.

**Unused Wells:**
If the well is not in use and does not have a Water Well Maintenance Permit, or it poses a threat to health or safety, Minnesota law requires that you must have the well sealed. If the well appears to be filled or capped, but you learn it was improperly sealed, the homeowner is responsible to have the well properly sealed by a MDH licensed well contractor. [https://www.health.state.mn.us/communities/environment/water/wells/lwcinfo/ewntification.html](https://www.health.state.mn.us/communities/environment/water/wells/lwcinfo/ewntification.html)

**But that sounds expensive! Do I really need to have it sealed?**
Yes. Not only is it state law, but it also protects the quality of your drinking water. Every unused well is a straight-line pipe down to your drinking water, making it easy for contaminants to enter your drinking water. And remember, most contaminants are odorless, colorless and have no taste, so unless you are...
testing your well water you may not know your water is contaminated... but that is another topic for a future article.

Cost:
The cost of sealing a well can vary considerably. Bargain hunt. Seek bids on what it would cost to seal your unused well and be creative and think outside the box. If you are drilling a new well, see if the cost of sealing your unused well can be lowered.

There also may be some financial assistance available to assist in the cost of sealing your unused well. Contact your local Soil and Water Conservation District or Environmental Services to see if grant funding is available. It is important to note most financial assistance programs cannot assist if the work is already completed, so reach out to your local government unit PRIOR to sealing your well. These things take time, but the financial savings can be well worth the time and effort.

Information provided in this article comes from a very handy-dandy MDH brochure located on their website at: [https://www.health.state.mn.us/communities/environment/water/wells/sealing/abandwel.html](https://www.health.state.mn.us/communities/environment/water/wells/sealing/abandwel.html).

I hope that I didn’t lose you in our virtual Unused Well Scavenger Hunt. If you have any questions, please feel free to contact me at [katie.breth@mrwa.com](mailto:katie.breth@mrwa.com). I would be happy to walk you through the process or put you in contact with your local SWCD for funding opportunities.
This article is an extension of an article from the Fall 2019 Today magazine. Cube Law explained is repeated in this article followed by how it is applied to an actual condition.

Discharge valves are throttled on pumps and blowers to reduce the flow of liquid or air creating a very common increased head condition. Compare this to driving your vehicle with one foot on the accelerator and another foot on the brake. Release the brake (open the discharge valve) and reduce the motor speed. Variable Frequency Drives control the motor speed.

80% motor speed equals 50% energy usage.

**Cube Law Explained**
The power is proportional to the speed cubed.

Since it is the power that costs the money, the graph shows what it looks like in practice. And the sums look like this for slowing down a pump by 20%...

"Cube Law Explained" was copied from Inverter Drive Systems LTD. [https://www.inverterdrivesystems.com/cube-law/](https://www.inverterdrivesystems.com/cube-law/).

Example: Variable Frequency Drives were recommended on 3 positive displacement air blowers. VFDs were installed after the 2018 assessment. The proof of savings is shown in the 2019 assessment. The flow increased by 112% but the price per million gallons was decreased by 56%. The VFD investment paid for itself in 1.4 years. Now they are saving over $4,000.00 per year.

Haven’t seen the Fall 2019 issue of TODAY Magazine? Check it out on our website: [mrwa.com/today.html](http://mrwa.com/today.html)
Flow increased by 112% but the price per million gallons was decreased by 56%. The VFD investment paid for itself in 1.4 years. Now they are saving over $4,000.00 per year.

<table>
<thead>
<tr>
<th>2018 Wastewater Treatment Facility</th>
<th>Sewer Plant Flow Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing From</td>
<td>Billing To</td>
</tr>
<tr>
<td>7/30/2018</td>
<td>8/29/2018</td>
</tr>
<tr>
<td>8/29/2018</td>
<td>9/27/2018</td>
</tr>
<tr>
<td>9/27/2018</td>
<td>10/29/2018</td>
</tr>
<tr>
<td>Three month total</td>
<td></td>
</tr>
<tr>
<td>Monthly average</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>2019 Wastewater Treatment Facility</th>
<th>Sewer Plant Flow Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing From</td>
<td>Billing To</td>
</tr>
<tr>
<td>7/29/2019</td>
<td>8/28/2019</td>
</tr>
<tr>
<td>8/28/2019</td>
<td>9/26/2019</td>
</tr>
<tr>
<td>9/26/2019</td>
<td>10/29/2019</td>
</tr>
<tr>
<td>Three month total</td>
<td></td>
</tr>
<tr>
<td>Monthly average</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Item</th>
<th>Recommended Energy Conservation Measure Description</th>
<th>Annual Energy Savings (kWh)</th>
<th>Annual Cost Savings ($)</th>
<th>Estimated Cost of Improvement ($)</th>
<th>Rebate Total ($)</th>
<th>Payback (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air blowers</td>
<td>Add VFD's to all 3 air blowers</td>
<td>44,562</td>
<td>$4,203.00</td>
<td>$5,832.00</td>
<td>$0.00</td>
<td>1.39</td>
</tr>
</tbody>
</table>

VFDs were provided at a reduced cost by the local electrician. Power companies almost always provide significant rebates to reduce the cost but this Municipal Electric provided zero rebate.

Call or email if you would like to consider an assessment at your facilities. Let’s save some money!
The times which we are in may be strange, but in the industry in which we are all a part of we all never skip a beat. Thank you all for your hard work and commitment to the industry. Your jobs as water and wastewater operations specialists are critical to day to day lives of Minnesotans, and we at MRWA thank you!

So, I wanted to give a bit of an update on the study that MRWA Pond Optimization Specialist Tim Hagemeier and I are working on. After the conference this spring, we presented the details for our April plan of action; however, we were set back due to current circumstances and will embark on the in-depth studies of six systems starting in June, and six more this fall. As we move forward in testing and optimization approaches, we will update those interested on how the process moves throughout the summer and fall season.

For those of you who maybe are new to hearing about this, we at MRWA are working with the University of Minnesota, MNTAP and the Minnesota Pollution Control Agency to look at many different wastewater treatment processes in Minnesota. We are working in-depth to find solutions or optimization strategies, specifically with nutrient removal. Tim and I are working specifically with ponds systems for this study. We will work in-depth with 12+ systems this summer. We are also working with many other stabilization ponds over the course of the study as well. As Tim and I visit with you, we will share more on our on-site stops and speak with you. We will probably gather a bit of information from you if you are interested in being a part of the study. The focus of the pond systems at first are sites that are dealing with stringent effluent nutrient (Phosphorus) limits.

As we move into summer, we will definitely be seeing many of you throughout our travels. I want to thank you all for being supporters of MRWA. These relationships are so important to me and all the MRWA staff! As training may be a little different than normal this summer, we will communicate with you all in the best way that we can to share information. We are all here for you at MRWA, so please reach out with a phone call, or we will be in your town or system soon.

Thank You all again!!!! Best Fishes!

<*)((((((>]<)

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SURVIVING COVID-19

Carl Brown, President, GettingGreatRates.com

“Money can’t buy me love.”
- Paul McCartney

“But it can buy you almost everything else.”
- Carl Brown

COVID-19 is a killer. It kills some people, some jobs, some of the ways we interact with others. It is trying to kill our economy. It might kill your utility. Or there is a slim chance, it might make it stronger.

Your utility or utilities and their finances will not be spared from COVID-19. I leave it to the Association to address utility operations, staffing, work protocols and certainly, protecting public health. I will focus on rates and funding your utility sustainably – keeping your utility alive and eventually, thriving.

COVID-19 has and will put many people out of work or cut their pay. At this writing, a one-time payment has gone to nearly everyone. Enhanced unemployment benefits will go to, as of this writing, 22 million newly out of work people. Wow! But unemployment payments do not exceed paying work.

Before COVID-19, and for decades back, surveys have shown that most households did not have $400 on hand for an emergency. Surely, that is gone now.

How long will COVID-19 and its financial effects last? Nobody knows. Maybe it has already passed. Will life go back to what it was before. Do not bank on that.

How will COVID-19 affect revenues for water and sewer service, trash collection, electricity and other utilities? Almost certainly, revenues will go down. What should you do about that? First, let us get some perspective.

If your utility has been maintaining “rainy-day” reserves on the order of about 50 percent of annual operating costs, your utility should survive for many months. Should.

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting Reserves</td>
<td>$100,000</td>
<td>$80,000</td>
<td>$60,000</td>
<td>$40,000</td>
<td>$20,000</td>
<td>$0</td>
</tr>
<tr>
<td>Expected Income</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Expense</td>
<td>($200,000)</td>
<td>($200,000)</td>
<td>($200,000)</td>
<td>($200,000)</td>
<td>($200,000)</td>
<td>($200,000)</td>
</tr>
<tr>
<td>Non-payment at 10%</td>
<td>($20,000)</td>
<td>($20,000)</td>
<td>($20,000)</td>
<td>($20,000)</td>
<td>($20,000)</td>
<td>($20,000)</td>
</tr>
<tr>
<td>Ending Reserves</td>
<td>$100,000</td>
<td>$80,000</td>
<td>$60,000</td>
<td>$40,000</td>
<td>$20,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

Before COVID-19, almost all of what you billed got paid, eventually. But with high unemployment, and reduced pay for many others, people who have always paid you will not be able to pay now. Table A above shows reserves at a non-payment rate of ten percent.

If, however, the non-payment rate goes to 20 percent, as shown in Table B, the utility would exhaust reserves in 2022. Without a big change or intervention, the utility will not survive that, period.

This survival talk assumes you would NOT need to tap reserves for any of the normal reasons you have those reserves: fixing things to remain operational; covering unexpected costs; next year covering the loss of a grant for a big improvement you need. If any of these things happen, you might run out of money before 2022 even gets here.

Consider ratepayers

Many people are hurting now, and this may be the new normal for lots of folks. Utilities are “for the benefit of the people”
businesses. Water and sewer utilities include the public health aspect, too. When a public health pandemic is going on, you do not want to shut off services vital to fighting the pandemic.

Difficult-to-pay customers need relief. Consider a rate structure that would help them. Or maybe more – a bill assistance program. Visit https://gettinggreatrates.com/freebies/RSIG.pdf to get the free “Rate Setting Issues Guide.” Chapter 4 covers bill assistance programs.

<table>
<thead>
<tr>
<th>Table B: Reserves at 20 Percent Non-Payment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
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<tr>
<td>-------</td>
</tr>
<tr>
<td>Startng Reserves</td>
</tr>
<tr>
<td>Expected Income</td>
</tr>
<tr>
<td>Expense</td>
</tr>
<tr>
<td>Non-payment at 10%</td>
</tr>
<tr>
<td>Ending Reserves</td>
</tr>
</tbody>
</table>

You are probably postponing shutoffs. That is a good measure for now, but this is going to get messy. When do you restart collections and eventually, shutoffs? How will you do that? How will you explain it? Will you recover the unpaid bills or write them off? And, what happens to the folks who, after COVID-19 is done, still cannot pay? For now, comply with no-shutoff executive orders and the like and take care of the folks, but start preparing for a hard conversation.

Consider the utility

Utilities cannot print money, so long-term, cash out cannot exceed cash in. If your rates are too low to weather COVID-19, you need to fix that. If rates are unfairly structured, hurting difficult-to-pay customers, that will worsen. To fit the new reality, fix the too-low rates, unfair rate structure and difficult-to-pay problems at the same time. You job depends on it. No pressure!

For utilities, there could also be a COVID-19 upside. In 2008, 2009 and 2010, there was a grant bonanza for shovel ready projects. Might that happen again? If your engineer has prepared design and bid documents, or they are close, maybe, just maybe, you can get the project built very cheaply. If you need that improvement and intend to build it “when the time is right,” the time might be now. For sure, having no debt or very little debt for something you really need would reduce the need for rate revenues for decades to come. But you must make that case to the ratepayers during a tough time.

Consider rate analysis

A cost-of-service rate analysis is not necessarily the fix for these ailments and opportunities. But it can pave the way.

Oftentimes, cost-of-service rates (at the customer level) are lower for small meter, low-volume customers. Make your rates fairly structured and you will probably reduce non-payment. That increases revenues. That is the best kind of bill assistance program.

Prove up your need for a big recovery grant and you might get that improvement built, at little cost to your ratepayers.

Understandably, you are not looking to increase rates right now. But when this is over, you will need revenue even more. Rate analysis will prove up your case for more revenue, fairer rates, taking the plunge on big improvements, getting big grants and more.

Now is not the time to be shy about rates. Call the Association and ask for rate setting help. If they can do what you need, great. If not, my firm, and of course others, can help you solve the rates problem, so you can keep your utility sustainable.

Carl Brown is President of GettingGreatRates.com, which specializes in rate analysis for water, sewer and other utilities. The firm serves as the RATES Program rate analyst for the Colorado, Kansas, New Mexico, North Dakota, Virginia and Wyoming rural water associations. Contact: (573) 619-3411; Carl1@gettinggreatrates.com
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 Initially, Circuit Riders were clergy assigned to travel around specific geographic territories and deliver a sermon or religious address to settlers and organize congregations in the earliest years of the United States. The National Rural Water Association (NRWA) pioneered the concept of a “Circuit Rider” for the water industry in 1980 in cooperation with the Farmers Home Administration, now Rural Development, Rural Utilities Service. The program was the result of congressional actions and appropriations advocated by NRWA to directly assist rural and small communities. NRWA was formed in 1976 as a utility membership association representing the water and wastewater industry in small and rural communities. The original goals and mission of funding and providing resources to assist rural and small utilities continue today. These small and rural utilities include most of the community water supplies in the nation. In fact, 91% of the 49,731 community water supplies serve less than 10,000 population, 26% serve 3,300 or less and 54% serve 500 or less.

The Circuit Rider Program was institutionalized into law on September 24, 1980 with the passage of the Rural Development Policy Act of 1980. The authorization of the Circuit Rider Program was created by Congress with this clear mission stating, “through the Farmers Home Administration for planning and technical assistance and for the establishment of a circuit-rider program to facilitate the delivery of Federal programs to rural areas. It also provides for dissemination of more information to the rural public about the availability of these programs. This bill will improve the Federal Government’s capacity to meet the needs of our small towns and country areas. It will move us from a protracted period of analysis to a program of active involvement in rural and small-community development....”

President Remarks on the passage of the Rural Development Policy Act of 1980:

“Senator Leahy and Congressman Wes Watkins, Congressman Nolan and others who are assembled here, ladies and gentlemen who are interested in the future of rural America—future of America... This legislation will enable the Farmers Home Administration to assist small communities in establishing circuit-rider programs to provide assistance in economic and community development. I’m today directing the Farmers Home Administration to act promptly to make funding immediately available for these circuit riders, who will go into a community, assess what can be done, that the initiative be from the local people, but provide counsel and assistance as necessary.”

Since 1980, this bi-partisan program has been the mainstay of viability for the nation’s rural and small community water and wastewater utilities. The value cannot be understated and is documented by the record of small utilities in compliance with the Safe Drinking Water Act, economic development in rural areas, and a delinquency rate on repayment of government debt to the Rural Utilities Service, which is consistently less than one-half of one percent.

The NRWA Circuit Rider Team is made up of 132 full-time professional men and women located throughout every state and territory. They provide a pool of expanded skills, knowledge and expertise that is usually unavailable to many small and rural communities. These technicians are uniquely qualified with a skillset that cannot be duplicated. Circuit Riders are practitioners who have actual hands-on experience managing and operating systems, a bank of knowledge gathered from working with systems across their respective states, possess a variety of license and are Utility Management Certified. Since 1980, they have developed operational knowledge and built trusting relationships with staff, governing officials and local leaders. These relationships allow Circuit Riders the ability to effectively communicate and improve all facets of their utility, governance, management operations, finances and sustainable actions for the future. In addition, this relationship allows for critical issues and actions to bypass local politics and receive unbiased information and advice from a trusted source.
Annually, Circuit Riders provide more than 50,000 types of technical assistance and support activities to the nation’s 45,255 community water supplies that serve 10,000 or less in population. The value of this critical expertise is documented in government reports and more importantly, from the systems and communities they served. Over the course of a year, there are continuous unsolicited appreciation letters received from utilities and local leaders such as:

“During a catastrophic occurrence such as this was, [Circuit Rider’s] experience and knowledge of how to handle everything was so appreciated. We think we would have been lost without their direction and guidance.” – PWSD #2, Jefferson, Missouri.

“As a small system on a tight budget we do not always have the funding to hire specialized contractors…. The Rural Water Association [Circuit Riders] provide valuable technical assistance to our system operations that would otherwise be unaffordable.” – Public Works Director – Brewster, Washington.

“To say that we were in dire straits is an understatement. A value cannot be placed on your Circuit Rider’s and training personnel’s assistance to all 82 counties in Mississippi.” – Poplar Spring Water District, Mendenhall, Mississippi.

Please visit www.nrwa.org or a State Rural Water Association website for more information on Circuit Riders.
MRWA’s 36th Annual Water Week Celebration Poster Contest ended in our very first TIE! Congratulations to Avery Bosma of Edgerton Public School and Ethan Johnson of Otsego Elementary School!

The poster contest is an annual event that is coordinated with other water resource educational materials. Avery’s and Ethan’s posters were selected out of three entries from around the state that advanced to the final round of judging which took place at MRWA’s Technical Conference in St. Cloud in March.

For their winning entries, Avery and Ethan each received a $100 cash gift card, an award certificate, and their posters on the cover of this Today magazine issue.

Honorable Mention!

Honorable mention shout out goes to Natalie Frieler from Sauk Centre Elementary School!

Thank you to all of the water and wastewater operations specialists who submitted posters to MRWA for consideration. We had a great amount of posters this year.

Watch your e-mail in late September for the 2020 Water Week Poster Contest materials that are mailed to your city or system. We appreciate your participation!
Communities are facing water challenges that are often ever-changing and unpredictable. The introduction of new technology, aging infrastructure and limited financial resources continue to impact how communities are managing their water infrastructure. These challenges are forcing communities to creatively solve their water challenges.

RENEWAL AND REPLACEMENT OF AGING WATER INFRASTRUCTURE
Many communities have water infrastructure that is over 100-years-old leaving them more susceptible to contamination or water main breaks. Replacing this infrastructure or modernizing functions and systems extends the lifespan of aging or dated infrastructure.

LONG-TERM WATER SUPPLY
The supply of water, one of our world’s most precious resources, has been a frequent news topic. It’s a critical issue in metro areas that have high consumption rates. These bustling communities are pumping their aquifers more resulting in low water supplies. Finding and creating sustainable water sources prepares a community for existing and future development needs.

GROUNDWATER MANAGEMENT
We often don’t think about groundwater, where it goes and where it comes from. Groundwater modeling and well and source water management ensure that a community is getting the most efficiency out of aquifers.

COMPLIANCE WITH CURRENT AND FUTURE REGULATIONS
Public water systems must meet regulations enforced by the Minnesota Department of Health and the Environmental Protection Agency. Proactive contaminant management and testing better arms a community to manage contaminants and solve problems before they occur.

ASSET MANAGEMENT
A robust asset management plan manages all existing infrastructure. The age of a system, how it’s maintained and allocating funds for improvements helps a community run more effectively.

FINANCIAL ASSISTANCE FOR CAPITAL IMPROVEMENTS
When faced with aging infrastructure or other water related challenges improvements aren’t possible without funding. It’s unpopular to raise utility rates and grants and funding opportunities can be scarce. However, there are several funding options available that many communities may not be aware of. Exploring all available resources and forming partnerships creates access to more capital.

SOURCE WATER PROTECTION
Protecting source water such as groundwater, wells, rivers or lakes from potential contamination is a progressive preventative measure to sustain water supply. A quality wellhead or source water protection plan is essential for protecting a community’s drinking water from potential contaminants.

EMERGENCY PREPAREDNESS
In 2018, the America’s Water Infrastructure Act (AWIA) was signed into law. The law requires community public drinking water systems serving more than 3,300 people to complete or update a Risk & Resilience Assessment (RRA) and Emergency Response Plan (ERP). These plans help communities better understand where risks lie and how to prepare for the unexpected.

WATER CONSERVATION AND EFFICIENCY
Many communities are working towards becoming green, sustainable, smart cities. Water supply plans evaluate conservation efforts while determining where efficiencies should be developed.

EXPANDING WATER REUSE
Reusing stormwater is a trend that has skyrocketed in recent years. Pumping stormwater into irrigation systems or other water reuse systems conserves water without tapping into the public water system.

Greg Johnson, PE
Director of Water/Wastewater
GJOHNSON@WSBENG.COM

Greg is a Principal and the Director of Water/Wastewater at WSB with more than 25 years of water and wastewater engineering experience. He has managed many complex projects related to project planning, design and construction administration of water treatment facilities, groundwater and surface water supplies, water storage structures, water distribution systems, wastewater treatment facilities and lift stations.
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The following are summaries of articles covered on NRWA’s Washington, D.C., homepage (www.ruralwater.org). For more information, or the original documents for any of these summaries, please visit the homepage. If you have a comment or position that you would like to be considered by the NRWA Regulatory Committee, let us hear from you by emailing Mike Keegan at keegan@ruralwater.org.

**New Waters of the United States Rule** — On January 23, EPA Administrator Andrew Wheeler and the Assistant Secretary of the Army for Civil Works announced a new, “clear” definition of “waters of the United States” under the Clean Water Act. EPA states that the new rule “delivers on President Trump’s promise to finalize a revised definition for ‘waters of the United States’ that protects the nation’s navigable waters from pollution and will result in economic growth across the country.” The revised definition identifies four clear categories of waters that are federally regulated under the Clean Water Act: the territorial seas and traditional navigable waters; perennial and intermittent tributaries; certain lakes, ponds and impoundments; and wetlands that are adjacent to jurisdictional waters. The proposal does include the NRWA-supported exclusions for stormwater control features; groundwater recharge, water reuse and wastewater recycling structures; and waste treatment systems.

“**It is safe to drink...**” But, Coweta City (OK) Must Mail Alarming Letter to Every Customer After Rain Causing EPA Rule Violation of .009 Parts Per Million (PPM) of Haloacetic Acids — Residents who are served by the municipal water plant in Coweta will be receiving letters notifying them of a violation of disinfection bi-products in the water. Public Works Director Wes Richter said “We have implemented several changes at the plant to bring that number down and we are below the maximum now, but it’s not good enough to get us out of mailing a letter.” Richter added that several other communities and rural water districts have had the same issues in recent months due to flooding and heavy rainfall in 2019. “It is safe to drink,” Richter assured. NRWA has been urging Congress and EPA to allow for these letters (Tier 2 Notices) to be posted to the internet similar to Consumer Confidence Reports.

**Navy Citizen Suit Highlights Concerns of Water Utilities Over PFAS Hazardous Water Determination** — A federal judge recently dismissed a landmark citizen suit seeking payment for medical monitoring to detect health concerns that may develop after exposure to PFAS, finding that regulators’ failure to designate the chemicals as “hazardous substances” precluded the plaintiffs from filing suit under state law (Kristen Giovanni, et al. v. Navy). However, the ruling could intensify efforts by environmentalists and others who have pressured EPA and Congress—so far unsuccessfully—to quickly designate PFAS as “hazardous substances” under the federal Superfund law. NRWA has been urging Congress to exempt water utilities in any legislation that requires the listing under Superfund.

**NRWA Joins PFAS Receivers’ Advocacy Group** — NRWA recently joined a coalition of PFAS “Receivers” (drinking water treatment systems, wastewater treatment facilities and municipal solid waste landfills) in an effort to educate the public and policymakers on our perspective on PFAS issues. The organizations in the group include: The National Association of Clean Water Agencies, The American Public Works Association, The Water Environment Federation, etc. NRWA is cosponsoring the coalition’s “Fact Sheet” on PFAS topics including: ambient levels of PFAS in the environment, the fact that water utilities are not responsible for PFAS in the environment/water, and the idea that policy and regulation should reflect
product manufacturer responsibility as well as cleanup, etc.

House Passes Comprehensive PFAS Legislation Over NRWA Objections — On January 10, the House of Representatives passed H.R. 535 on a 247-159 vote. The House bill would require EPA to add PFOA and PFOS to the list of hazardous substances under Superfund law. The bill also directs the EPA to create standards for PFOA and PFOS in drinking water within two years, something that NRWA successfully resisted in 2019. NRWA was asked by the House staff briefing members of Congress on the bill for our position. NRWA has urged Congress to include an exemption for small and rural communities from Superfund liability for PFAS in the bill for cases where a small or rural community was not responsible for introducing PFAS into the environment. The legislation, as currently crafted, extends Superfund liability to small and rural water utilities (local governments) that are not responsible for PFAS contamination. Responsible parties should be held accountable for remediation, treatment and providing alternative sources of safe drinking water in such cases. In 2019, the EPA indicated it would designate PFOA and PFOS as hazardous substances under Superfund law, but the agency has not yet done so. NRWA has urged that the House bill be made consistent with Senate-passed bipartisan PFAS legislation (S. 1790) that included many of NRWA’s main positions for addressing PFAS in the public’s drinking water and sewer effluent: limitation on civil enforcement for local communities, dedicated funding for communities affected, dedicated funding to small communities (i.e. communities with the most need), and funding for unregulated contaminant monitoring for small communities. Also, the Senate-passed bill does not extend Superfund liability to small and rural communities.

H.R. 535’s Key PFAS Provisions — • The EPA must designate PFOA and PFOS as hazardous substances under Superfund law, and has five years to determine whether all PFAS should have the same designation. • The EPA must craft, at minimum, SDWA standards for PFOA and PFOS in drinking water within two years. This section of the bill would also set a deadline for EPA to consider regulating additional PFAS or classes of PFAS in drinking water. • EPA must create a program to award grants to communities with water supplies contaminated by PFAS. The funds should be used to pay for implementing water treatment technologies. The EPA must also determine which treatment technologies effectively remove all detectable PFAS from drinking water. • EPA must list PFAS as hazardous air pollutants under the Clean Air Act. • SRF funds for emerging contaminants in drinking water should focus on addressing PFAS. • EPA must require companies that manufacture or process PFAS to submit data that would help the agency evaluate the substances’ environmental and health risks. • EPA must require companies that have manufactured PFAS at any point since 2011 to submit a report to the agency.

NRWA and National Water Association Caution House of Representatives on PFAS Legislation — On January 8, a group of national water associations signed a joint statement to the House of Representatives expressing opposition to H.R. 535 because the legislation fails to protect water system customers from liability for PFAS cleanup costs. The groups believe that PFAS should be kept out of our nation’s water supplies, and that PFAS polluters should be held responsible.

Vermont Rural Water Association Leads in Emergency Assistance to Communities Detecting PFAS in Drinking Water — In January, Vermont issued “do not drink” orders to a number (four reported) of small communities that have relied on VRWA technical assistance to the “crises.” More orders could be coming as the state implements testing requirements. In Vermont, 590 CWs and NTNCs were required to test. There are at least three systems with initial results >20 ppt that are waiting for confirmation results. Not all initial results have been received due to the lab backlog and 60+ systems are having to resample. VRWA’s Executive Director, Liz Royer, reports that there are limited funding sources to address contamination and that every question answered results in 10 more questions. For example, take the case of the Mount Holly School: the small, rural public elementary school (<100 students) has cumulative levels for 5 PFAS = 323 ppt; its assumed source is FFF; it is financially strapped due to consolidation issues and is looking at cutting bus service because of the lack of funding available for PFAS response. The school also has no funding available to hire an engineer to go through the eight “response action alternatives” mandated by the state drinking water program; and the school has asked VRWA to step in and be their “advocate.” See news coverage of the school.

New Hampshire Fights Suit Against New State PFAS Rules— New Hampshire is asking the state’s highest court to strike down a lower court’s preliminary injunction of its water standards for four per- and polyfluoroalkyl substances (PFAS). The challenge led by Plymouth Village Water & Sewer District (a water utility member of New Hampshire rural water) is a potential test case for challenges to state water PFAS standards, as New Hampshire is one of the first states to set strict, enforceable drinking water levels for a suite of PFAS, in the absence of federal requirements (PFOA MCL of 12 ppt, PFOS MCL of 15 ppt, PFNA MCL 11ppt, and PFHxS MCL of 18ppt). The lower court issued a preliminary injunction and it stayed the order until 2020 to allow for an immediate appeal. The lower court accepted plaintiff’s argument that the state failed to adequately weigh the rules’ costs and benefits.

Private Water as the “Solution” to Small Water Systems and Noncompliance— “A harsh reality is that some government utilities in New Jersey have failed in their efforts to provide essential water and sewer services, putting public health at risk… As local governments find themselves challenged to manage their water systems and fund necessary infrastructure investments, the private sector stands ready to help… Newark’s system is currently facing similar serious lead and water quality issues… And small systems are struggling, too. In fact, as drinking-water compliance researcher and university professor Manuel Teodoro testified the state’s water problems are “most prevalent in small water systems…” [Prove] water companies reinvest revenues back into community water systems, which is one of the major factors behind their perfect water quality record—their infrastructure is simply better and safer because of these investments…”

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