

**Wisconsin**  
**Rural Water**  
**Journal**

Fall 2019

**PFAS Information from-NRWA**

**Know Your Limits**

**Water Conservation...Why?**

**VFDs...What Are They For & How Do They Work**

**American Water Works Association -  
Veteran's Workforce Initiative**

**18th WRWA Outdoor Expo Highlights**

# 18<sup>th</sup> ANNUAL WRWA 2019 OUTDOOR EXPO



Highlights See pages 31-34

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**Ramon Knudtson,**  
*WRWA President, Melrose*

**T**he end of summer is here and we're getting ready for all the things that comes with fall. Not only a great time to be outside, but time for getting ready for winter too!

I'd like to thank all the vendors and all the attendees that came to our Annual Expo. You all made it one of the largest and best Expos we have had. It was a great day and the weather was perfect. I hope that everyone had a good time, learned a lot and will come back next year. I'd also like to thank the WRWA staff that worked so hard to make the Expo such a great success. They really worked hard to make the Expo such a great time for all.

One of the most important things we do for our Rural Water members is watch for state and federal legislation that will have an effect on your systems. There are a couple of articles on the PFAS issue which will cover water and wastewater issues in this journal. This issue will be far reaching and may start a path to some big changes in our industry.

There is a plastic pipe piece of legislation going around the capitol that looks harmless, but it could end up mandating plastic pipe be used in all new construction. We are always looking at lead issues and are vigilant on watching for other issues. You will be continuing to see monthly Legislative Updates and any calls to action. Please look these over because they will affect your systems and cities.

We most likely will be asking for your help in the future with contacting legislators and attending hearings; we have to be heard at the government level to keep our industry sustainable and safe.

Thanks again everybody. Be careful out there in the field. Remember, Winter is coming!

*Ramon*



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**Chris Groh,**  
WRWA Executive Director

## Good vs Cheap

One of the new catch words being bantered around the state is “Sustainability.” What does sustainability mean and how do we run a “sustainable” water or wastewater system? Let’s look at some examples:

What would you put in for a sampling tap at your well? There is good; a stainless steel sampling tap that will allow you to take safe samples without contamination and the need to retest or even endure a “boil water notice”...or cheap; a garden hose bib that costs \$1.50 from the local warehouse store. The water runs thru it and stops when it’s off, it doesn’t use a lot of money out of the budget so we can buy a nicer shovel to dig up leaks.

What would you use to attach your lift station pump to the chain used to raise your pumps for repairs? There is good; Grade 10 stainless steel bolts (\$1 per bolt) that will take years to corrode (if ever) and attached to a stainless steel chain for years of safe service...or cheap; Dick’s Hardware Chinese iron bolts at 15 cents per pound (well maybe 30 cents per pound with the tariff). Aah, buy 2 because they’re cheap and we may need to replace one this winter during a rainstorm on Christmas Eve.

What would you get for a new work vehicle? 2020 mid-engine Corvette (with a built in toolbox) at \$73,885...or, a Ford F-150 bought on the Wisconsin Rural Water Fleet program for \$30,000?

Good choices and cheap choices. It depends on your needs and whether or not you need to run a system that can sustain its quality at an affordable price, or cheap choices that will fail, cause damage to your customer’s health and property and cost way more for repairs and lack of structure in the end.

These are the choices we face when we speak of “Sustainability.” Are you getting value for the money you’re spending, or is quality just an idea that has no place in your budget or system. Quality does not have to cost much, but it sure as hell will cost more than cheap! Lots of government

entities and others in authoritarian positions preach sustainability and quality, but they do not practice it.

We recently lost a bid for training and the answer to our inquiries was “The award decision was not based off a determination of which vendor might perform the services better or which vendor might have the more experienced staff, the firm that was lowest priced was awarded the contract.” Sustainable? Value for the money? Does this training really matter to the authority? I’ll let you decide.

WRWA’s training is second to none in this state and the rest of the 50 states, and Puerto Rico. We are the training authority in Wisconsin for sure. This training is mostly at no cost to our systems, but there is a cost, and unfortunately it’s not cheap! Quality is never cheap, but in the end it is sustainable, but not at the lowest price.

By the way, I would get the Corvette. *Chris*



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## We get letters and emails!

We'd love to hear from you...

Kelly,

I would like to thank you for your hands on help with all my 24 water samples I needed to take today. With a long time between required mass sampling like this, it is reassuring to know that I can always rely on WRWA and you to help me out. Also, thanks again for the recommendation for our pumps mechanical issues.

I look forward to seeing you in upcoming classes.

Brian Naylor  
Building Maintenance Supervisor  
Village of Elm Grove

To whom it may concern,

Thank you George for all his help. He is there each time we need it.

Thank you,  
Terry, BASD

Renee,

Thank you for everything you and the Staff do for the annual conference and Outdoor Expo.

KLM had another great show. I look forward to other opportunities to be an exhibitor and a presenter in the future.

Thank You,  
Mike Olesen, WI Sales Manager, KLM ENGINEERING, INC.

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Good morning Mr. Groh and Mr. Giese!

I wanted to send the WRWA some positive feedback on behalf of my environmental education campers... The kids were working on an environmental science activity and when they were doing a web quest on earth's resources they ended up on your webpage ([www.wrwa.org/other-resources](http://www.wrwa.org/other-resources)) They thought I should let someone know that we were using the links there and found some AWESOME water info - especially from the DNR link at the bottom so.. Thank you :)

They also decided it would be nice of us to return the favor, so they did some research to find another educational water resource to share with you...

Kids' suggestion: (Water Cycle Glossary of Terms) -- <https://www.oberk.com/watercycleglossaryofterms>

It's a great water cycle vocabulary page (we used it to make flash cards!) so they thought it'd be a helpful link for you to add to your resources & links page they found... would you be able to? They'd be so proud and I'd love to show them their suggestion. :) Thank you both again and have a good day... happy September!!

Best,

Miss Ainsworth and Carly, Julia, Kaitlin, and Rocco

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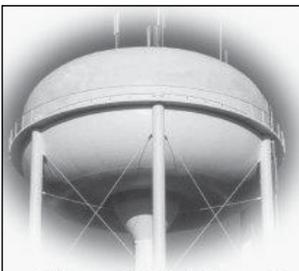
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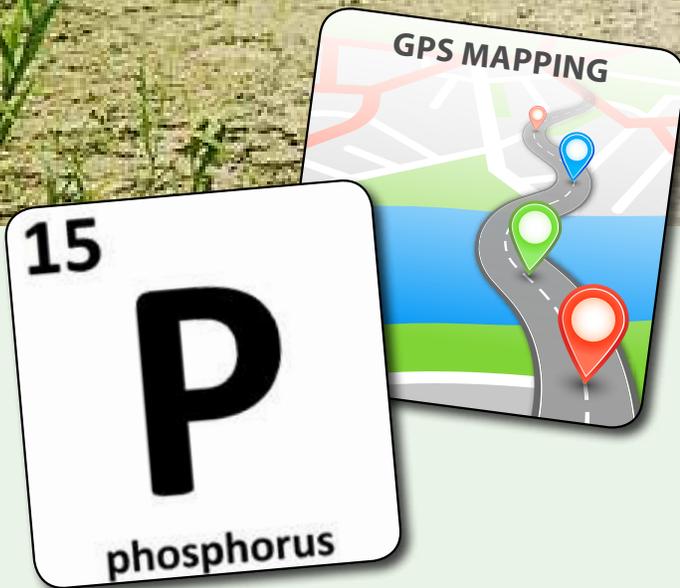
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# Thoughts from the Road- Know your limits



**Jesse Hass,**  
WRWA Wastewater Technician/Trainer  
Wastewater Specialist

Any current information about the status of various TMDLs can be found on the Wisconsin DNR's TMDL informational page



**P**hosphorus limits have been a hot topic for about 10 years now. Some of the limits that some of you may have been given include 0.040 mg/l, 0.075 mg/l, 0.1 mg/l, 0.2 mg/l, 0.5 mg/l, and 1 mg/l. The differences between these limits can be millions of dollars in upgrades to a facility. The issue I am currently running into with a lot of systems is with permits. In some cases permits are being held until limits are finalized and in some cases permits are sent out with a limit of 0.075 mg/l before a system's TMDL is implemented. This is an issue because if you receive a future limit

NEXT PAGE ►

of 0.075 mg/l before your TMDL is finalized your limit may change. If you receive a permit, most likely you will get a permit with a current phosphorus limit and a future limit. Most permits will also have a schedule of benchmarks that you will have to achieve to meet the future limit. The schedule included in the permit usually has things that a system must do over the upcoming years to meet a lower phosphorus limit in the future.

So for example, if you are one of the systems staring down a limit of 0.075 mg/l by say 2024 then you would start investigating how to meet this limit by 2024. A problem some systems are currently running into is the permit limit and the TMDL are different but some systems do not know what their TMDL limit is yet. Any current information about the status of various TMDLs can be found on the Wisconsin DNR's TMDL informational page. In some cases systems might not know what the TMDL limit will be for up to 2 to 4 more years. My advice would be to look into this page and look over every TMDL. This is important because some systems were paying engineering fees to meet a limit of 0.075 mg/l, and then found out they will have a limit higher than the 0.075 mg/l. Some systems found out that their new limits were higher than the 0.075 mg/l, one system found out they were getting a 0.2 mg/l, another system found out they were getting a 0.4 mg/l and lastly I heard from a system that is receiving a 0.67 mg/l. The thing that is important to remember is, you may be part of a TMDL and not know that you are. Also, information for meetings and public comments may be hard to find as well. Stay informed, ask other operators around you, and if I drop by mention it to me and we will try to do a little digging.

**MAPPING**

Mapping is becoming a hotter topic these days with more affordable options available to municipalities than in years past. GPS used to seem like an impossible task unless you hired an outside firm. Now with a little direction and training, having your own GPS maps is a very reasonable thing to accomplish. With web based services available on the internet, systems of all sizes are able to start up their own GPS maps and have control over their own maps. If I stop by, ask me about options that may be available to your systems. These days anyone has the capability to have a professional looking map at a very affordable price. Also, keep an eye out for some classes coming in the next year that we will be offering on the subject. I think we will have a few offered in Mid-October.

**EXPO**

For those of you that attended our annual Expo in August I would like to thank you. We had another successful Expo with over 85 vendors and 675 attendees. The Expo included on-site demonstrations, numerous technical sessions, many excellent exhibits and raffle with over 40 prizes. For those of you out there who have not attended the Expo, I would encourage you all to do so. It is one of the best days out there for an operator to get quality training and credits. Next year's Expo will be August 20th, 2020, and I hope to see more people there next year. What started out as a day with just a handful of vendors is now one of the premier water and wastewater training days in the state and the Midwest.

*Jesse*

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# PFOAs in Waste

Kay Curtin

WRWA Trainer/Technician



**Y**ou, as wastewater treatment plant operators in Wisconsin, are probably hearing about PFOAs, perhaps for the first time. If you haven't already been involved with testing and removal of these substances, here is the short course on PFOAs:

**1. What are they?** They're man-made substances that have been used since the 1960s in Teflon, wrapping for foods, Scotch-Gard, Gore-Tex, paints, fire-fighting foam and many other products. There have been over 3000 variations of these chemicals made, but the main ones that have been showing up in drinking water in the U.S. are per- and polyfluoroalkyl compounds. These compounds all contain numerous fluoride molecules.

**2. Why are we concerned about them?** These compounds are persistent in the environment, build up in the body, and are suspected of causing developmental problems in children, autoimmune problems, liver, kidney and thyroid disease, high cholesterol, hormone imbalances and several different types of cancers and birth defects. They've shown up in blood samples of 99% of all people in all nations on earth. According to the Environmental Working Group (EWG) newer compounds such as Gen-X, that have been made to replace the older ones, are not much safer. Studies are still being conducted world-wide as to the health effects and limits of safe exposure of PFOAs.

**3. Where did they come from?** They were first used in the military following WWII. The main manufacturers are 3M and DuPont, both of whom have been involved for some time in litigation. The compounds have been changed to newer formulations, such as Gen-X, that supposedly do not persist indefinitely in the environment.

**4. What happens to them in wastewater?** Wastewater treatment plants are not the source of PFOAs, but, as you know, are receptacles of all wastes. The concern is that in cities and villages where manufacturing with these substances has been done, high levels of PFOAs will be present in effluent and biosolids from the wastewater facilities.

**5. How is wastewater tested for PFOAs?** There is no accepted test at this time for PFOAs in wastewater, only for drinking water.

**6. What is the limit for PFOAs in wastewater?** The EPA has tentatively set it at 70 parts per trillion. The DHS and DNR are recommending 20 parts per trillion with an action limit of 2 parts per trillion, much lower than the recommended EPA limit. Public hearings will be held in 2020, although the EPA is accepting comments on their web site.

# water



**7. How do you get rid of PFOAs?** Ultrafiltration, carbon filtration, and incineration are methods that can be used. There are some of these systems already in place in highly contaminated areas such as the southeastern suburbs of the Twin Cities in Minnesota. Needless to say, these methods are costly.

**8. What if our municipality is asked to voluntarily test their wastewater for PFOAs?** Unless you know that you've had a known source of PFOAs in your community, Municipal Environmental Group and Wisconsin Rural Water Association are recommending you do not voluntarily test until (1) acceptable test methods for wastewater have been developed, and (2) the EPA and DNR have established decisive and reasonable limits for these compounds. The 2 ppt action limit may eliminate the spreading of biosolids for many municipalities, which would be a major concern. If you have a known source of PFOAs, work with the DNR to prevent it from entering the drinking water supply in your community.

*For more information, contact me, Kay Curtin, at 715.340.8827 or [kcurtin@wrwa.org](mailto:kcurtin@wrwa.org). I can give you contact information of experts on PFOAs, and laboratories that are currently certified to test them in drinking water.*

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# American Water Works Association Veteran's Workforce Initiative

**David M. Kelter**

*Relief Operator- Appleton Water Utility and  
WIAWWA Regulatory Committee Vice-Chair.*

Like a number of you reading this article, I stepped forward, raised my hand and gladly pledged service to our great nation. I served a four year enlistment to the United States Air Force after graduating High School in 1992. (For those reading this article that have served or continue to serve, thank you.) A young, unfocused yet well-intentioned teenager was about to leave his life of leisure and comfort (sort of) and enter a world of regiment, detail, and calisthenics, lots of calisthenics. An eye opening transition to say the least as many fellow Veterans can attest to.

Fast forward to March 1996, my enlistment was nearing its end. It was time to start preparing for yet another major transition- a soldier leaving the military lifestyle for that of a private citizen. Fortunately the Air Force had a very good transition assistance program that made this process much less stressful, and helped prepare me for the working world. We were taught how to create a resume, how to prepare for and conduct an interview, and the best places to look for employment opportunities. And as many of you remember from those days that meant scanning piles of newspapers, clipping job ads and filling out applications until your hand simply went on strike.

One point our transition coach emphasized is no matter how well you have marketed yourself to the working world, there is no guarantee that you will be hired. You are one of any number of candidates for a particular position. Your experience and Honorable Discharge won't necessarily get you to the front of the pack. As he put it, "You have to hope they like hiring GI's."

Now I was very fortunate to have spent my time in the Air Force as a Utilities Systems Journeyman. Nearly four years of classroom training and on the job experience with plumbing, water treatment and distribution and wastewater collection and treatment. An occupation

with great security whether I chose to be a career Airmen or a regular citizen. A career serving a great purpose and one that provided long term security are a few of the reasons I chose this amazing profession. That is why I believe Vets are a great fit for the water industry and vice versa. Providing the gift of clean water to our communities is a never ending quest that offers tremendous opportunity for many years to come.

In August 2017, The American Water Works Association created a Veteran's Workforce Initiative to investigate ways to help veterans secure jobs in the water industry. The AWWA believes military members are a great fit for the water sector because of their technical expertise and experience working nontraditional hours in a regulated environment. The program has two aspects:



- 1) A volunteer support network consisting of Section members who will serve as the critical connection between local water industry entities and separating military personnel interested in water industry careers.
- 2) Toolkits
  - One for personnel separating from the military (How to find a job)
  - One for utilities (How to hire a Veteran)

For additional information regarding this initiative, I invite you to visit [awwa.org/veterans](http://awwa.org/veterans). Or you may contact me by email at David.Kelter@appleton.org or veterans@awwa.org. As the volunteer for the Wisconsin Section, I would be happy to answer any questions you may have or share any additional information you may need regarding this initiative.



Now I do not mean to take anything away from those applicants who represent other walks of life. After all, every organization hopes to hire those that have the right combination of talent, education, experience and team-chemistry that best matches the continuity of the organization. But the focus of this article however is to promote Veterans and highlight a number of critical attributes they possess that are quite beneficial to public sector utilities.

**-First**, a service before self mentality. Regardless of our job titles, we are public servants first and foremost. A service before self mind set is at the very core of everything we as public utilities do. **-Second**, familiarity with organizational structure. Also known as “Chain of Command.” The similarities between these two structures make for a more seamless process for both the employer and the Veteran. **-Third**, working towards a common goal. Regardless of the individual political, religious or philosophical viewpoints that make up a workforce, Veterans know all too well the importance of working towards a common goal and achieving your mission as part of a team. **-Last**, a sense of pride that just can’t be found anywhere else.

“I like to view PRIDE as an acronym: Productive, Responsible, Innovative, Dependable, and Ethical. All characteristics that are always welcome within a positive and prosperous work environment.”

Now obviously the list of positives could continue on for quite a while, but I wanted to focus on some of the more pertinent and relatable attributes. The ones that are character based and not merely credentials. All of which only make any organization stronger. The intangibles that may not show up in a resume or on an application, but rest assured they are there in a selfless abundance.

Thank you for your time and have a great rest of your 2019.

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**PSC WATER RATE INCREASE ORDERS ISSUED**

JUNE, 2019 – AUGUST 31, 2019

UTILITY NAME	ORDER ISSUED	OVERALL% INCREASE
Albany Municipal Water and Sewer Utility	06/11/19	44.89%
Lodi Municipal Light and Water Utility	06/12/19	33.67%
Butler Public Water Utility	06/14/19	13.09%
Columbus Water and Light Department	06/19/19	20.16%
Osceola Municipal Water Utility	07/01/19	28.17%
Bear Creek Water Utility	07/19/19	75.02%
Black Earth (Village of) Water Utility	07/24/19	48.66%
Arlington Water Utility	07/26/19	41.38%
La Crosse Water Utility	07/26/19	19.34%
Union Center (Village of) Water Utility	07/26/19	26.60%
Tigerton Municipal Water and Sewer Utility	07/26/19	47.74%
Wisconsin Rapids Water Works and Lighting Commission	08/22/19	17.40%
Greendale (Village of) Water Utility	08/23/19	16.67%

**PSC CONSTRUCTION AUTHORIZATIONS ISSUED**

JUNE, 2019 – AUGUST 31, 2019

UTILITY NAME	ORDER ISSUED	CONSTRUCTION COST
Chippewa Falls Department of Public Utilities	06/04/19	\$600,000
Milwaukee Water Works	06/14/19	\$735,000
River Falls Municipal Utility	07/24/19	\$797,218
Shorewood Municipal Water Utility	08/06/19	\$1,471,270
La Crosse Water Utility	08/15/19	\$979,800
Butler Public Water Utility	08/28/19	\$243,847

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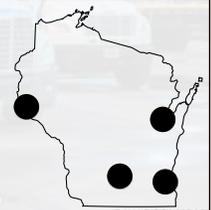


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# Water Conservation, Why???

Water is a natural renewable resource on the earth.

Todd Weich,  
WRWA Water Circuit Rider

**W**e all know that water is a life necessity and is used every day in our households, industry, fire protection and so on. We became creatures of habit in the “how we use water”. Some of us love having that lush green lawn, others love having the spotless car. Some have that awesome outdoor pool to use on hot days. Industry uses water for the product they deliver to be consumed or used by the population.

**Have you ever stopped to think about where that water came from? We all know where it comes from...your faucet... Right?** But where is it before the faucet. Water is a natural renewable resource on the earth. Whether we get our water from a well, reservoir that catches snow melt and rain or surface water, we have started to learn that maybe water isn't as renewable as first thought.

There is an estimate of 166,000 public water systems and approximately 13 million households that rely on private wells. Some other things to consider besides all the wells in production:

1. Less than 2% of the Earth's water supply is fresh water.
2. Of all the earth's water, 97% is salt water found in oceans and seas.
3. Only 1% of the earth's water is available for drinking water. Two percent is frozen.
4. The human body is about 75% water.
5. A person can survive about a month without food, but only 5 to 7 days without water.
6. Every day in the United States, we drink about 110 million gallons of water.
7. A leaky faucet wastes about 100 gallons per day.
8. One flush of a toilet, on average, uses 3 gallons of water.

Knowing there are that many wells, a few water facts and knowing this resource is limited, it's time to start a plan for water conservation. Unfortunately, there is no easy solutions to this problem, but there is something you can be done.

### As an operator, what can be done?

First, start looking at what your water loss is; are the supply meters calibrated and working properly.

If filtration is used in your system, is the backwash process set correctly to use the least amount of water in the process, but continue the quality of water being treated.

Consider repairing the nuisance leaks that you have been putting off. Check valves, fittings, etc.

Ask yourself where else could the system be improved?

Contact your Wisconsin Rural Water Circuit Rider to assist you in water conservation.

### Start a community involvement and education programs.

- Talk with the users as you're doing a meter change out or cross connection surveys.
- Hold education sessions.
- Have a “town hall meeting” or “brainstorming session” with the users. If it becomes their idea, they are more likely to buy into the programs.
- Meet with the big users of your water system. Meet one on one with them.

### Start educating your council and board members.

- Invite or partner up with your board and council members when having a “town hall meeting”.
- Educate the board and council members on water loss within the system.
- Explain the cost savings. Water conservation will directly impact electric and chemical use. Cost saving always opens up the eyes of the board or council.
- If needed draft and approve water conservation ordinance.

The U.S. population has doubled over the past 50 years, while our thirst for water has tripled. EPA says that at least 40 states are anticipating water shortages by 2024. The need to conserve water is critical. You might not see the effects of the water conservation program you implemented but the future will see it.

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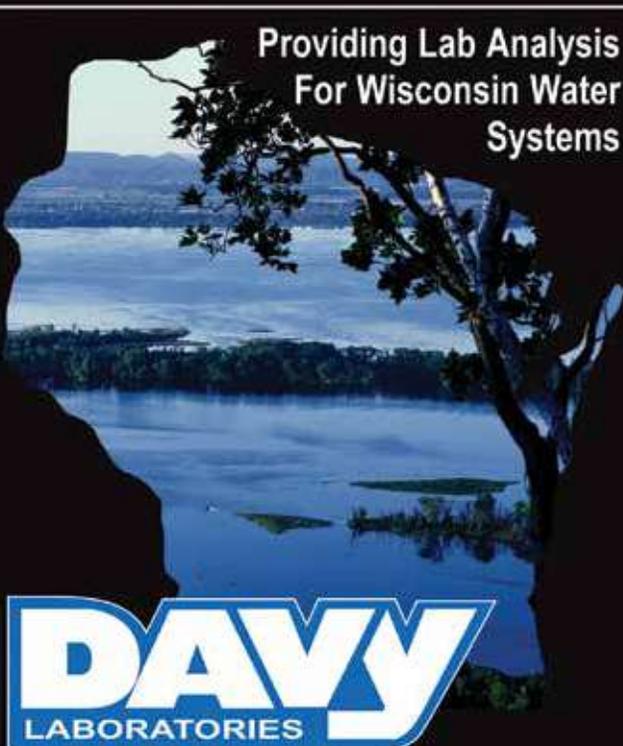
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# LATERAL INFORMATION



**Jeff LaBelle,**  
*WRWA Technical Assistance Director*

*As I started to research for this article I found out why there are so many questions. The answers are not that easy to locate.*

---

I would like to take this opportunity to thank everyone for making our August Expo the largest ever. We had 87 vendors and almost 700 attendees WOW!!

I have had some questions on what materials are allowed to be installed on the customer side of the lateral. As I started to research for this article I found out why there are so many questions. The answers are not that easy to locate.

My first looked at PSC 185. The information in this code has nothing to do with materials that may be used for laterals. This code under Sub Chapter V-Engineering, talks about laterals being placed at depths to protect against freezing, and also about a customer's lateral being directly connected to the mains. Also that the utility is the owner of the lateral to the last buried valve. Looking farther I also found Frozen Laterals (PSC185.88) information. This section tells when it is the utilities responsibility and expense to thaw out laterals. One interesting fact is that if the customer's lateral is not electrically conductive and the freeze-up is not a direct result of a utility disconnect, the expense of thawing is the customer's.

The next place I looked in my search was to NR 811. Under sub chapter XI- Distribution Systems,

NR 811.61 Applicability, The only information states that "Other piping systems shall be constructed in accordance with the requirements of Ch. SPS 382".

From this point I moved to SPS 382.40 Subchapter IV Water Supply systems. All I found there was this statement: All water supply systems shall be constructed of approved materials in accordance with SPS 384.

After all this looking, I finally found what I was looking for in SPS 384.30(4). This part of the plumbing code deals with Water Supply Systems. This section of code has way more information than I have room to put here. This section tells what type of pipe material and the standard it has to meet. From all the reading this made me do. I have found that the only part of the lateral you can control is what is installed from the corporation to the curb box or edge of easement. After the curb box the lateral is the owners and he may use any approved materials to the structure.

This article is an update of one that I wrote back in 2010. Like everything else the code numbers and paragraphs have had some changes, but still pertinent information for operators and customers.

Have a great fall. *Jeff*

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Quarter page	\$270	\$860	\$400	\$1,400
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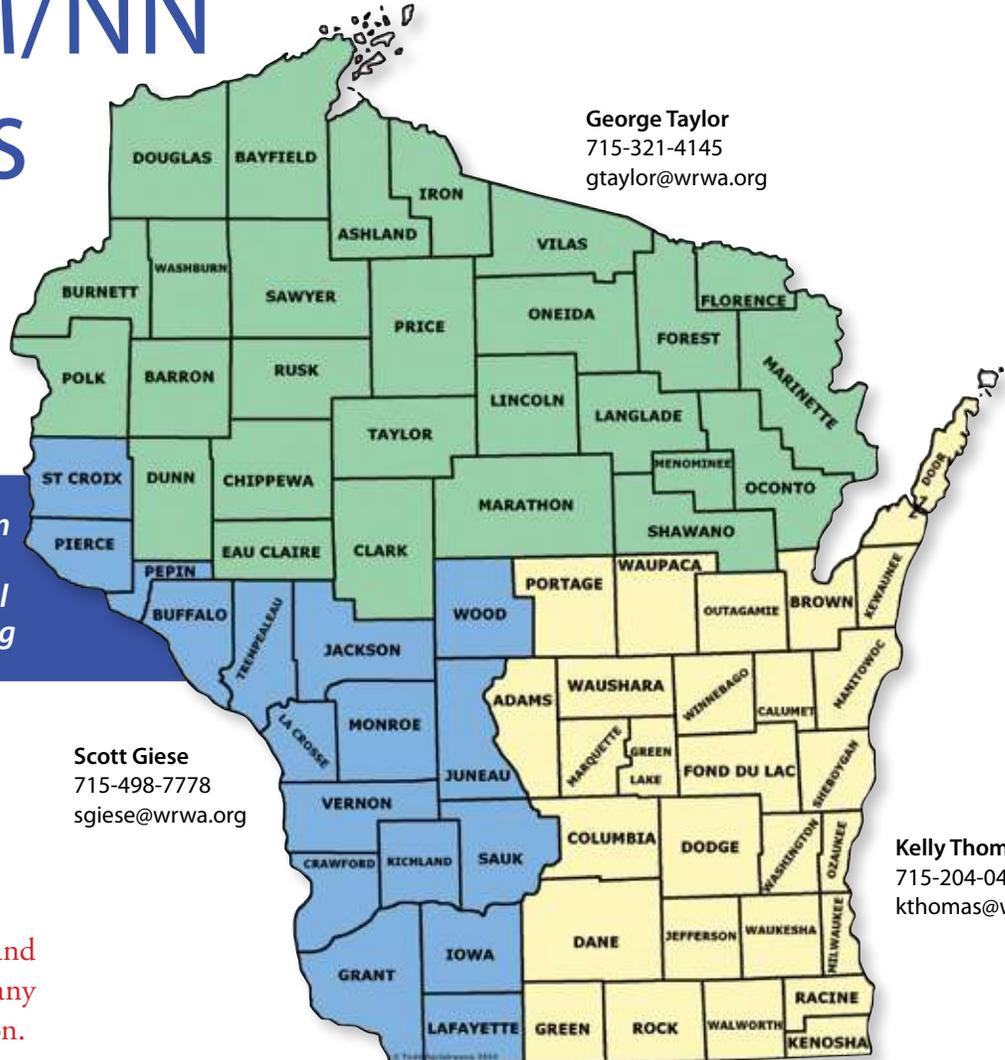
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# Changes in Training for OTM/NN Systems

By Kelly Thomas

George Taylor  
715-321-4145  
gtaylor@wrwa.org

*WRWA Small System Coverage Areas OTM & NN Technical Assistance & Training*



Scott Giese  
715-498-7778  
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*Our passion, experience and quality is unparalleled with any other company or organization.*

Due to a DNR cost saving decision, Wisconsin Rural Water Association (WRWA) has had to reduce the number of training classes offered to Other than Municipal/Non-Transient Non-Community (OTM/NN) water system operators. For the foreseeable future, WRWA will be offering quarterly continuing education classes. Unlike the past, these classes will be offered at a fee of \$45/class. WRWA will continue to offer two (2) classes/day. So that means a full day of classes will be \$90 per attendee (3 credits/class=6 credits for a full day). The quality of our classes will not change. WRWA will continue to offer the most current updates by the most qualified instructors in the industry.

Just remember, WRWA is synonymous with quality operator training for drinking water. Our passion, experience and quality is unparalleled with any other company or organization. WRWA, along with its hundreds of members, has proven to be the leader in nationwide,

superior water and wastewater continuing education as evidenced by receiving numerous training quality awards at national events.

WRWA will continue to offer on-site technical assistance for all of our OTM/NN water systems. WRWA understands the need for assistance on-site. We understand that many questions cannot be answered over the phone or email. Our highly qualified staff brings over 100 hundreds of years of experience and the ability to assist operators in nearly any situation that may arise. Our relationship with the DNR and EPA is a huge resource for water operators. Having the DNR and EPA on our "team", operators can expect WRWA to be informed of the latest drinking water regulations information, which in turn we share with you, our operators.

Our staff, past and present, along with your support, has made WRWA what it is today and we will continue to serve you, our customers, any way we are able. If you have any questions regarding the new training set-up, please call your circuit rider.

# RETIREMENT!!



**Scott Giese,**  
WRWA Education Director

As an industry the utility business draws a special type person that has tremendous responsibility, but very little recognition, and we accept that.

March 18, 1988 was my first day on the job with the Wisconsin Rural Water Association. I drove to the office in Whiting and met with Ken and Janis. I had just left my job after 5 Years with the Sparta Water Utility. Before that I was an operator with the Washington Heights Sanitary District for 3 years. My first day with WRWA was filling out paperwork and discussing the circuit rider job requirements. At that time we had 8 members with Goodman S.D. Being the first. Later that first day, we jumped in Ken's Jeep pick-up with his favorite German shorthair in the back and headed out. We stopped at Little Chute and met with the manager. Ken handed him a copy of our Journal and a membership brochure. We talked about some training that was coming up and headed back to Whiting. Ken was a great boss. He was a good trainer and organizer and a gifted writer. His articles back in the day, The Village Café, was well received. The training sessions were well attended. I never missed a training session when Ken was training. In 1995, with the addition of another program, WRWA reorganized and Ken became the Executive Director, I moved into the training position. We quickly grew both system members and business members. Our first conference in Plover was swamped. We moved to the Holiday Inn in Stevens Point the next year and we kept on getting bigger and bigger till we out grew the facility.

It's been a good ride. I've met and got to work with some outstanding people. As an industry the utility business draws a special type person that has tremendous responsibility, but very little recognition, and we accept that. I had a beautiful state to work in with way too many wonderful lunch spots. Things change. A lot of new faces at the systems and in Madison and the companies in our industry. I want to thank all of you that are part of Team Rural Water. I hope you all are as nice to whoever takes the Education Directors position as you have been to me. As I retire from WRWA I will still consider myself an ex-operator. I still have a land line and am in the phone book.

Scott

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# AERIAL LIFT SAFETY



**Vince Matarrese,**  
*Advanced Safety Technology, Inc.*

Your training should include treating all overhead power lines and communication cables as energized.

---

**A**n aerial lift is any vehicle-mounted device used to elevate personnel. They may be powered or manually operated, and are considered to be aerial lifts whether or not they can rotate around a primarily vertical axis.

## TYPES OF HAZARDS

- Falls from elevated levels,
- Objects falling from lifts, striking employees,
- Tip-overs,
- Ejections from the lift platform,
- Structural failures (collapses),
- Electric shock (electrocutions),
- Entanglement hazards,
- Contact with objects, (structures, tree limbs, etc.) and
- Contact with ceilings and other overhead objects or structures.

## TRAINING

Only trained and authorized persons are allowed to operate an aerial lift. As per OSHA regulations, training should include:

- Explanations of electrical, fall, and falling object hazards;
- Using the proper personal protective equipment (full-body harness with lanyard attached to boom or bucket, Class E Type 2 protective helmet, etc.);
- Procedures for dealing with hazards;
- Recognizing and avoiding unsafe conditions in the work setting;

- Instructions for correct operation of the lift (including maximum intended load and load capacity);
- Demonstrations of the skills and knowledge needed to operate an aerial lift before operating it on the job;
- When and how to perform inspections; and
- Following manufacturer's requirements, which includes the operator's manual.

Always consider retraining workers when any of the following occurs:

- An accident occurs during aerial lift use;
- Workplace hazards involving an aerial lift are discovered;
- A different type of aerial lift is used or
- Operating an aerial lift improperly.

Don't forget setting up proper work zones as per the 2009 Uniform Traffic Control Device Manual. This also includes high-visibility safety apparel that meets ANSI/ISEA 2004 or newer. It is recommended you wear Class 3 Performance clothing at all times.

Your training should include treating all overhead power lines and communication cables as energized, and stay at least 10 feet away from all power lines. Greater distances will be required for over 50,000 volts to ground power lines. Always contact Diggers Hot Line for distances and voltage. Do not drive with the lift platform raised (unless the manufacturer's instructions allow this).

**PRE-TRIP INSPECTION**

Always follow the manufacturer’s recommendations and include a check of vehicle components:

- Proper fluid levels (oil, hydraulic, fuel and coolant);
- Leaks of fluids;
- Wheels and tires;
- Battery and charger;
- Lower-level controls;
- Horn, gauges, lights and backup alarms;
- Steering and brakes. Lift components
- Operating and emergency controls;
- Personal protective devices;
- Hydraulic, air, pneumatic, fuel and electrical systems;
- Fiberglass and other insulating components;
- Missing or unreadable placards, warnings, or operational, instructional and control markings;
- Mechanical fasteners and locking pins;
- Cable and wiring harnesses;
- Outriggers, stabilizers and other structures;
- Loose or missing parts;
- Guardrail systems.

NEVER operate any aerial lift if any of these components are defective until it is repaired by a qualified person. Remove defective aerial lifts from service (tag out) until repairs are made. Follow manufacturer requirements for proper setup of your type of aerial lift. Always look for unstable surfaces, slopes, ceiling heights and weather which includes high wind.

As always, it's all about going home. Have a safe hunting season and tie-off while in your tree stand.



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# Fall Chores to Ease Winter Woes

By Annetta Von Rueden

**F**all ..... a reminder that warm days of summer are coming to an end. Kids are back to school and the busyness of summer is gone. Blackbirds will be bunching up, cranes will flock up, and geese will be heading south. Even the bugs get louder. If you sit there long enough, it can be almost to the point of deafening.

Get out the flannel shirts and jackets. Time to head to the woods. To bow hunt, or to the waters to duck hunt. Fall can be an excellent time for some great fishing. Is also great for that final tour on the motorcycle.

As the mornings cool down, there is a stillness. Heavy dew and light fog lay their blankets across the land as the sun comes up. To me, there is no better time to think. The beauty of Fall still gives us a few more months to enjoy a touch of warm weather.

A time to reflect on another year almost gone by and wonder where time went. Our list of many things to do doesn't even seem to have a dent in it. There are a lot of things to do in a water utility during

the summer. Being in Wisconsin, that window of opportunity can be (or is) SHORT. Yet alone meeting all the requirements of the DNR.

A few items that still could be done before the s..... (snow) flies.

Found in the DNR codes NR 810.13 system maintenance.

(a) Hydrant flushing. Freshen up the lines before winter. Eliminates those water quality complaints during winter. It also meets the requirements of NR 810.13 (2) (b, c, d).

(b) Hydrant exercising. All hydrants shall be exercised at least once every 2 years.

Being in Wisconsin, that window of opportunity can be (or is) SHORT

(c) Hydrant maintenance. Hydrants shall be maintained in proper working condition, consistent with the manufacturer's recommendations.

(d) Flushing dead – end mains. A schedule shall be established for flushing dead – end mains in other areas to remove sediment or water of poor quality.

NR 810.13 (2) (a) Valve exercising. All distribution system valves shall be exercised a minimum of 2 to 5 years. The department recommends 5 to 7 years for hydrant lead auxiliary valves.

It is a good idea to take time to locate valves in the system, so they are there when you need them. We don't schedule leaks or main breaks. When that time does arise, you need the valves to work. Valves are also extremely handy to listen for leaks or correlating. WRWA staff can help with leak detection and correlating. Get the weed whip out, pull the bush back, and find those valves. (That are supposed to be on the map!) Mark them with a fence post or you can purchase designated delineators. GIS (which WRWA offers), is a nifty tool as well. The whole system right at your fingertips out in the field. Time goes by way too fast. Relying on memory after years can be challenging. "It used to be there." You'll be glad you did.

Speaking of a year almost gone by I have been the southern Circuit Rider for almost a year now. I would like to thank you – the operator's for making this job so rewarding. It has been great meeting all of you whom I have met this far. And am looking forward to meeting the rest of you soon.

Remember, we WRWA are here for you. If you need anything, just call!

ENJOY the colors of Fall! *Annie*





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# PFAS Information from National Rural Water Association

**N**RWA is gathering information across the country to see how many water systems have been affected or have growing concerns about Per- and polyfluoroalkyl substances (PFAS).

## What is PFAS?

PFAS are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

## What are the possible health effects?

Studies have shown an association between increased PFOA and PFOS blood levels and an increased risk for several health effects, including effects on the liver and the immune system, high cholesterol, high blood pressure, thyroid disorders, pregnancy-induced hypertension and preeclampsia, and cancer (testicular and kidney).

## Where can PFAS be found?

PFAS may be in drinking water, food, indoor dust, some consumer products, and workplaces. Blood serum concentrations of PFASs are higher in workers and individuals living near facilities that use or produce PFASs than for the general population. Pathways of exposure include ingestion of food and water, use of consumer products or inhalation of PFAS-containing particulate matter (e.g., soils and dust) or vapor phase precursors.



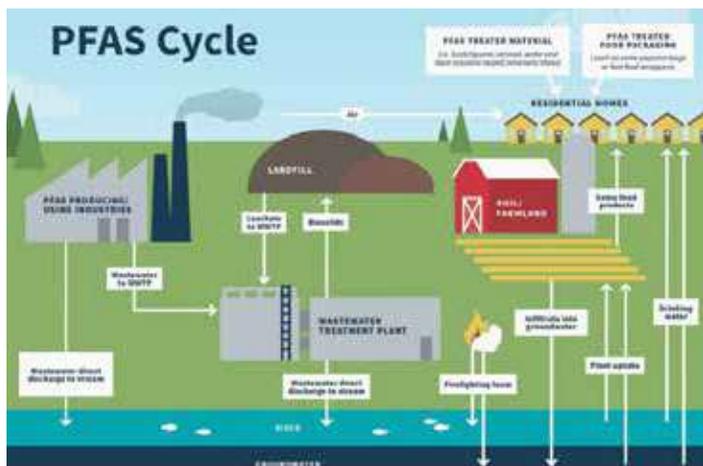
## What is being done?

On October 10, 2008, the U.S. Environmental Protection Agency (USEPA) announced a negative regulatory determination for perchlorate in accordance with the SDWA, "The Agency determined that a national primary drinking water regulation (NPDWR) for perchlorate would not present a meaningful opportunity for health risk reduction for persons served by public water systems."

USEPA revised this determination on February 2011 with an affirmative conclusion. "EPA has determined that perchlorate meets SDWA's criteria for regulating a contaminant -- that is, perchlorate may have an adverse effect on the health of persons; perchlorate is known to occur or there is a substantial likelihood that perchlorate will occur in public water systems with a frequency and at levels of public health concern; and in the sole judgment of the Administrator, regulation of perchlorate in drinking water systems presents a meaningful opportunity for health risk reduction for persons served by public water systems. Therefore, EPA will initiate the process of proposing a national primary drinking water regulation (NPDWR) for perchlorate."

Eight years later, USEPA announced a PFAS Action Plan to respond to the public interest and utilized information received. This represents the first time EPA has built a multi-media, multi-program, national communication and research plan to address an emerging environmental challenge like PFAS.

EPA's Action Plan identifies both short-term solutions for addressing these chemicals and long-term strategies that will help provide the tools and technologies that states, tribes and local communities need to provide clean and safe drinking water to their residents and to address PFAS at the source—including before it gets into the drinking water.



### The USEPA Action Plan includes:

- **Drinking water:** EPA is moving forward with the maximum contaminant level (MCL) process outlined in the Safe Drinking Water Act for PFOA and PFOS—two of the most well-known and prevalent PFAS chemicals. By the end of this year, EPA will propose a regulatory determination, which is the next step in the Safe Drinking Water Act process for establishing an MCL.
- **Clean up:** EPA has already begun the regulatory development process for listing PFOA and PFOS as hazardous substances and will issue interim groundwater cleanup recommendations for sites contaminated with PFOA and PFOS. This important work will provide additional tools to help states and communities address existing contamination and enhance the ability to hold responsible parties accountable.
- **Enforcement:** EPA will use available enforcement tools to address PFAS exposure in the environment and assist states in enforcement activities.
- **Monitoring:** EPA will propose to include PFAS in nationwide drinking water monitoring under the next Unregulated Contaminant Monitoring Program. The agency will also consider PFAS chemicals for listing in the Toxics Release Inventory to help the agency identify where these chemicals are being released.
- **Research:** EPA will develop new analytical methods so that more PFAS chemicals can be detected in drinking water, in soil, and in groundwater. These efforts will improve our ability to monitor and assess potential risks. EPA's research efforts also include developing new technologies and treatment options to remove PFAS from drinking water at contaminated sites.

- **Risk Communications:** EPA will work across the agency—and the federal government—to develop a PFAS risk communication toolbox that includes materials that states, tribes, and local partners can use to effectively communicate with the public.
- Together, these efforts will help EPA and its partners identify and better understand PFAS contaminants generally, clean up current PFAS contamination, prevent future contamination, and effectively communicate risk with the public. To implement the Action Plan, EPA will continue to work in close coordination with multiple entities, including other federal agencies, states, tribes, local governments, water utilities, industry, and the public.

In April 2019, a key component of the Action Plan, a draft interim guidance for addressing groundwater contaminated with perfluorooctanoic acid (PFOA) and/or perfluorooctane sulfonate (PFOS), was released for public review and comment.

A month later, USEPA released the pre-publication version of the proposed perchlorate drinking water regulation. USEPA asked for comments on a proposed Maximum Contaminant Level (MCL) and Maximum Contaminant Level Goal (MCLG) of 56 micrograms per liter. In addition, the Agency is seeking comment on three alternative regulatory options: an MCL and MCLG for perchlorate set at 18 micrograms per liter, an MCL and MCLG for perchlorate set at 90 micrograms per liter, and withdrawal of the Agency's determination to regulate perchlorate.

The rule denies any opportunity for a small community "variance," which is a compliance option authorized in the Safe Drinking Water Act that allows a small community that exceeds the MCL at a level that presents no harm to the public to have access to an affordable compliance option.

NRWA had asked EPA to clarify the "intelligible principle" used by the Agency in implementing the decision to select perchlorate as a regulation. The proposal does not include any articulated "intelligible principle" for how EPA decided to select perchlorate for regulation. The proposed rule does not explain what principle EPA relied on to determine how to select perchlorate for a SDWA regulation.

### What you can do now?

NRWA is bringing together utility systems from across the country that have concerns or have been affected by PFAS contamination. NRWA has set up a page on its website, [nrwa.org/initiatives/PFAS](http://nrwa.org/initiatives/PFAS), for systems to enter their information. This information will allow NRWA to arrange a free evaluation of the system and provide more details about efforts to recover costs for remediation and treatment from PFAS contamination.

Visit [nrwa.org/initiatives/pfas/](http://nrwa.org/initiatives/pfas/) to learn more and be a part of future efforts to recoup costs from PFAS contamination.

## TOP 5 FACTS YOU SHOULD KNOW

1. PFASs are persistent in the environment, meaning they are resistant to typical environmental degradation. Water providers suffer significant operation and maintenance costs because these chemicals never degrade, making it harder to get them out of the water systems.
2. Blood serum concentrations of PFASs are higher in workers and individuals living near facilities that use or produce PFASs than for the general population. Pathways of exposure include ingestion of food and water, use of consumer products or inhalation of PFAS-containing particulate matter (e.g., soils and dust) or vapor phase precursors.
3. Studies have shown an association between increased PFOA and PFOS blood levels and an increased risk for several health effects, including

effects on the liver and the immune system, high cholesterol, high blood pressure, thyroid disorders, pregnancy-induced hypertension and preeclampsia, and cancer (testicular and kidney).

4. During manufacturing processes, PFASs are released to the air, water and soil in and around manufacturing facilities. Recently, PFOS and PFOA contamination has also been observed in facilities using PFAS products to manufacture other products (secondary manufacturing facilities).

5. PFAS has been detected in surface water and sediment downstream of production facilities and in wastewater treatment plant effluent, sewage sludge

# VFDs...What Are They for and How Do They Work



By Tony Roche

A hot topic of discussion within the energy sector is the use of variable frequency drives.

---

**H**ello everybody, my name is Tony Roche and I am the new Energy Efficiency Circuit Rider for WRWA. In this role I will be conducting energy efficiency assessments at water and wastewater systems throughout the entire state of Wisconsin. I have been working in water and wastewater utilities since 2012 and I look forward to working with you all.

A hot topic of discussion within the energy sector is the use of variable frequency drives. This article will focus on the basics of a variable frequency drive.

## **WHAT IS A VARIABLE FREQUENCY DRIVE (VFD):**

A VFD is an electrical device that allows alternating current (AC) motors to operate at variable speeds. Without a VFD in place, electrical motors operate either at 0% speed or 100% speed. There are inherent inefficiencies without being able to “fine-tune” a motor speed, but through the use of a VFD an operator can operate an electric motor at 50%, 75%, or whatever motor speed is best for that particular application. VFDs can also be used to start motors at very low speeds and then ramp up to 100% speed, allowing for a “soft start.”

## **HOW DOES A VFD WORK:**

VFDs work by converting incoming power from alternating current to direct current (DC), and then back to alternating current. VFDs contain internal diodes that take incoming AC and convert it to DC. These diodes act as check valves and allow electricity to only flow one way, hence DC. The newly converted DC is somewhat “dirty” and is then “cleaned” with an internal capacitor. These capacitors act as filters and ensure that the DC is usable. The clean DC is then converted back to AC with an internal transistor. The transistor acts as a switch and allows variable electric current to be sent to the electric motor.

These are very basic descriptions about the internal workings of VFDs. If an AC motor is not equipped with a VFD, one can be installed, and sometimes the energy savings realized can pay for the investment in less than one year. I hope this article was helpful, and remember that if your facility would like an energy efficiency assessment please give me a call. *Tony*





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# 18<sup>th</sup> ANNUAL WRWA 2019 OUTDOOR EXPO



## Highlights

*The WRWA Board, Staff and Expo Committee would like to  
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# 2019 Outdoor Expo Raffle Prize Winners



Tailgate Package (Grand Prize)  
Adaptor, Inc.  
**Anton Skof**



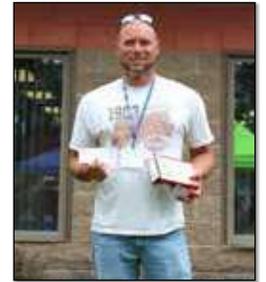
Worx 20v Cordless 2 in 1 Drill  
KLM Engineering  
**Lance Wright**



2 Chairs, Cooler & Beer  
Northern Lake Service  
**Jay Jochimsen**



Cooler, t-shirts, hats, mug  
Monroe Truck Equipment  
**Jon Craker**



Brewer Tickets & Golf Balls  
Mueller Company  
**Christopher Semenas**



\$100 Cash  
Waterworks Service  
**Michael Dunbar**



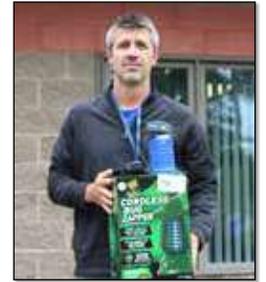
\$250 Trapper Turn Gift Card  
American Flow Control  
**Brian Abitz**



Milwaukee Tools  
Cretex  
**Jay Jochimsen**



Crossfire Scope  
Core & Main  
**Grant Laue**



Bug Zapper  
SubSurface  
**Eric Bunnell**



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L.W. Allen  
**Ron Bystol**



Kwik Trip & Tumbler  
L.W. Allen  
**Joe Hoban**



\$50 Fleet Farm Gift Card  
Hawkins  
**Eric Bunnell**



Milwaukee Tool Kit  
Badger Meter  
**Shane Kohnen**



Rival Trail Camera  
Visu-Sewer  
**Bradley Gretschmann**



Roku & Popcorn  
M.E. Simpson  
**Christopher Massart**



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Mulcahy Shaw  
**Mike Wojtalewicz**



Yeti Package  
Ferguson  
**Jack Hanson**



\$25 Kwik Trip Gift Card  
HydroCorp  
**John Doyle**

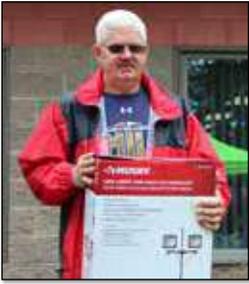


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HydroCorp  
**Jon Craker**



Moultrie Trail Camera  
UEMSI  
**Scott Popelka**

# 2019 Outdoor Expo Raffle Prize Winners



Husky Work Light  
Synergy Sales  
**Robert Hulett**



Badger Tickets & Canopy  
Martelle Water  
**Jeff Deitsch**



Milwaukee Impact Driver  
SUEZ  
**Kelly Thomas**



Amazon Gift Card  
Underground Utility Specialists  
**Randy Pedersen**



\$50 Cabela's Gift Card  
Dorner  
**Michael Dunbar**



Folding Chair & Tumbler  
Vermeer  
**Ronald Griffin**



Blackout Archery Target  
P.J. Kortens, Co.  
**Gerald Serwe**



Bluetooth Speakers & Packer  
Cooler  
Crane Engineering  
**Ryan Reader**



\$100 Cash  
B&M Technical  
**Joey Schmidt**



Bail Cooler Kit  
Xylem  
**Jacob Lukes**



Oscillating Multi Tool  
CUES  
**Emerald Faulkner**



Igloo Cooler Package  
William/Reid  
**Robert Mignon**



Igloo Cooler Package  
William/Reid  
**Roger Freund**



\$50 Cabela's Gift Card & Cooler  
Robert E. Lee  
**Andrew Minster**



50 Quart Wyld Gear Cooler  
CBS Squard  
**Kyle Gruetzmacher**



Envelope of Cash  
WRWA Staff & Board  
**David Nelson**



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Ayres Associates  
**Todd Hanson**



\$50 Menards Gift Card  
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**Samuel Helmers**



\$50 Fleet Farm Gift Card  
Dixon Engineering  
**Bandon Ball**



Wisconsin Badgers Canopy  
MSA Professional  
**Jason Meyer**

## Additional Raffle Prize winners not pictured

3-D Archery Target  
Cribbage Board

ETNA  
CTL

**David Herfel**  
**Jeff Kruetzinger**

# Congratulations!



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# 12<sup>TH</sup> ANNUAL WATER CONSERVATION POSTER CONTEST

This year's theme is "Be a Water Conservation Hero".



**Andrew Aslesen,**  
*WRWA Source Water Specialist*

**W**RWa is pleased to announce the 12th annual Water Conservation Poster Contest. This year's theme is "Be a Water Conservation Hero". A hero uses selfless acts of courage, strength or ingenuity to promote the common good of all. When applied to water conservation the concept promotes putting aside our own self-interest and working towards a shared goal of responsibly managing our precious water resources. The goal of this this year's theme is to challenges students to think beyond themselves and help develop a water conservation ethic.

We invite and encourage all water operators, wastewater operators, clerks, administrators, board members and others to give the poster contest informational flyer found in this issue of the journal to the schools in your communities (both public and private schools). The water conservation poster contest is a great way for utilities to connect with their local school and educate students and the public on issues that utilities face every day along with how utilities protect the environment and promote water conservation. The poster contest is open to public, private & home school students in 1st through 6th grade anywhere in Wisconsin. Participants are asked to create a poster that depicts a message of water conservation that relates to our theme. As part of the project, teachers have the opportunity to discuss the importance of water resources and water conservation with their

students. Additionally, teachers are given the option to invite Wisconsin Rural Water Association staff to give a groundwater presentation at their school. We receive participant's posters in February, they are reviewed and the top 15 posters from each grade are displayed at our Annual Technical Conference in March. Conference attendees choose the winning posters by voting for their favorite poster from each grade. The top two posters from each grade are awarded first and second prize. First place winners receive a \$100 cash prize and their school has a chance to win \$500. Second place winners receive a \$50 cash prize.

In the last eleven years, the Water Conservation Poster Contest has continued to be an outstanding success. Last year there were more than 800 participating students from around 60 classes at 38 different schools. I hope you will help us continue educating students on water conservation. Join us in promoting this year's poster contest by distributing the information on the contest to schools in your community and encouraging them to participate. If you or your school has won before, we encourage you to enter again. If you have any questions or need additional entry forms feel free to contact me; Andrew Aslesen, WRWA Source Water Specialist at [Aaslesen@wrwa.org](mailto:Aaslesen@wrwa.org) or calling 715-321-3451.

*Andrew*



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*continued on page 44*



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**Village of Browtown**, located in the southern part of the state in Green Co., is seeking a Public Works operator. Wage is dependent on experience, must be able to attain water and sewer license, communicate well, take direction, and work independently. Benefits include state insurance and retirement, seven paid holidays, sick days and one-week vacation after completion of a year employment. The Village is an equal opportunity employer; contact the clerk at 608-966-3273 or the village president at 608-558-8954.

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**Village of Arlington** is accepting applications for a full time Public Works Maintenance Worker. Applications and Position Description can be obtained from [arlingtonwi.com](http://arlingtonwi.com). Qualifications Required: Valid DL and ability to obtain a CDL within one year of hire. Successful applicant will be required to obtain water and sewer certifications. Salary based on experience. Mail application to Village of Arlington, PO Box 207, Arlington, WI 53911. Applications accepted until position is filled.

**Village of Bellevue** is one of greater Green Bay's fastest growing municipalities with a population of over 15,300 residents. The Village provides a full range of Public Works services to our residents and our growing community. The Village is seeking an experienced Engineering Technician to add to our team that is motivated to make Bellevue a "Great Place to Grow" and provide the highest quality of services to our residents, businesses and contractors working with the Village. This full-time position reports to the Director of Public

Works. For a complete list of position duties, responsibilities and requirements please see the Job Description available on the Village of Bellevue website. The preferred candidate will possess at least five years of progressively responsible experience in engineering practices and/or public works inspection. Applicants with more limited experience or greater experience in other aspects of municipal public works services are encouraged to apply. Starting wage range of \$24.00 - \$28.50 DOQ. The Village offers a competitive benefits package and participates in WRS. To apply, please submit a cover letter, resume, and references to [employment@villageofbellevue.org](mailto:employment@villageofbellevue.org) or mail to Village of Bellevue, Attn: Human Resources, 2828 Allouez Ave, Green Bay, WI 54311. Closing Date: Applications will be accepted until the position is closed.

**Village of Adell** is hiring a Utility Worker. This is a full time position with the Village. Primary duties include: Assist the Wastewater Treatment Plant operator with maintenance and operation of the plant and sewerage collection system, perform maintenance, operation and sampling of the water supply and distribution system, perform maintenance and repairs of streets, buildings, and equipment, perform maintenance of the parks and plow snow from village streets, parks and buildings. Some weekend work is required on a regular basis. Water main repairs, snow removal and other storm responses as required may occur outside of regular work hours. A high school diploma or equivalent is required. Having a commercial driver's license is a plus and may be required. Construction, municipal, building and ground maintenance or farm experience is a plus. Holding water or wastewater operators certifications is a plus. This employee will be required to obtain water and wastewater certifications. Work is performed in a combination of shop setting and outdoor work during all seasons. Starting pay will be commensurate with experience. Applications will be accepted until the position is filled. Applicants may email a cover letter along with their resume to [villageofasell@wi.twcbc.com](mailto:villageofasell@wi.twcbc.com) or mail to Village of Adell, 508 Seifert Street, Adell, WI. 53001



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**Delta 3 Engineering, Inc.**, located in Platteville, WI, is seeking a motivated person for a full-time position with the firm as a **Wastewater Engineer**. The applicant must possess a Bachelor of Science degree in Civil, Environmental, or Chemical Engineering with a Wastewater/Water background or similar educational qualifications and the ability to obtain a Professional Engineer (P.E.) License in the State of Wisconsin or Iowa. Practical work experience as a water/wastewater process engineer is a plus. Job duties to include: comprehensive engineering planning, design, analysis and operational studies of water and wastewater process and treatment systems; and oversee and review construction of wastewater and water projects. Our firm is an EOE and offers a full benefit package. Salary is dependent upon qualifications. Please submit your resume with references and salary requirements to: Delta 3 Engineering, Inc., Attn.: Mr. Bart Nies, P.E., 875 S. Chestnut Street, Platteville, WI 53818. bart@delta3eng.biz, www.delta3eng.biz

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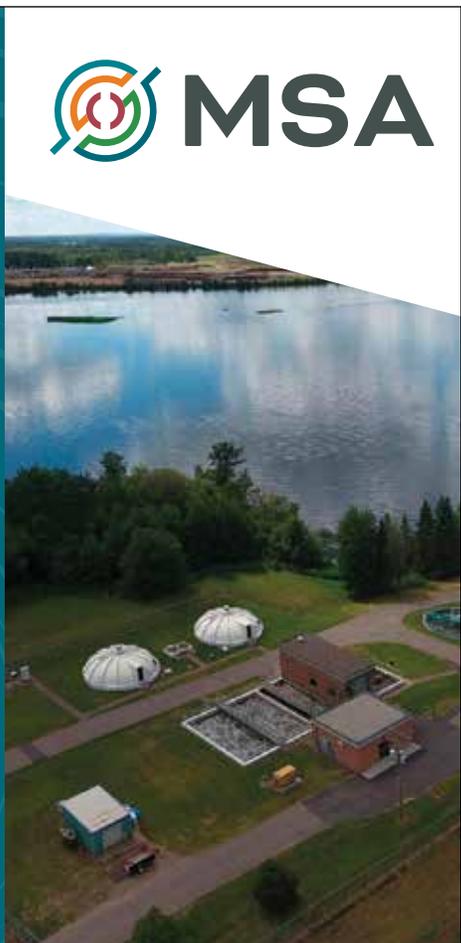
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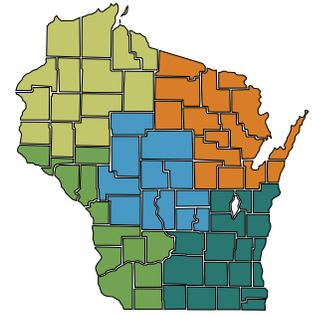
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