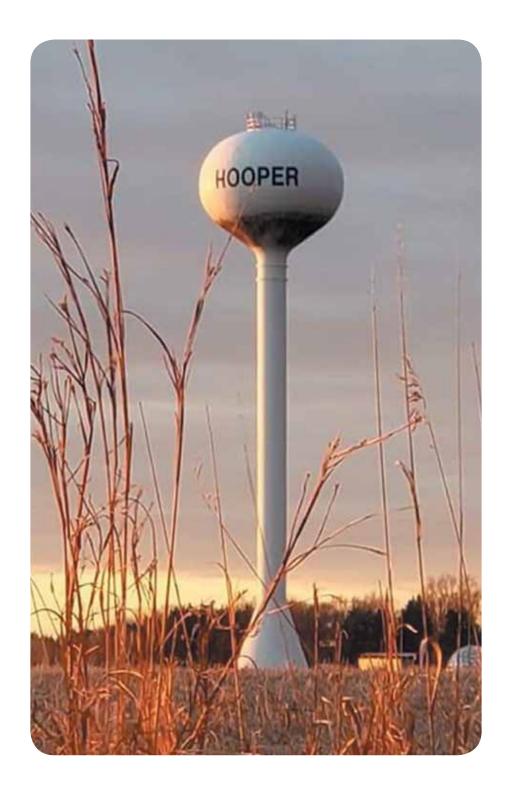
Nebraska Good Water News

ISSUE 2/2020





Nebraska Rural Water Association



lets you safely neutralize chlorine/chloramines during hydrant flushing. Lightweight and easy to use, it reduces spray pressure while dechlorinating water—simply add dechlorination tablets. As part of the USABlueBook family of products, this diffuser is guaranteed to deliver great performance at a great price.

Aluminum Dechlorination Diffuser

96741

\$ 999.95

Many accessories are available. See our website or catalog for more information.







2¹/₂" Flow Testing Diffusers include a gauge so you can easily measure flow during hydrant flushing. A built-in baffle and rotating head let you control discharge pressure and direction.

Flow Testing Diffuser with Carrying Case, 100 psi 53145 \$ 537.95 Flow Testing Diffuser with Carrying Case, 160 psi 53146 537.95

For more information or to order:

800.548.1234 • usabluebook.com



Nebraska Good Water News

Issue 2/2020

"Keeping Our Water Safe"

T_{2}	110	α f	Contents
1 11	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

2020 Training
Farewell to Mike Lucas
Asset Management - A Big Part of Capacity Development
NeRWA Update5
Drawdowns Made Simple
Different Source Water Plans
What a Week!
NeRWA Conference Highlights
What a Difference a Year Makes
Greetings from Adam German
Quarantine Quiz for Fun
Summary of Evaluations (NeRWA Kearney Conference) 15, 19
Situation Awareness
Western Conference Time
NeRWA Scholarship Winners
Guidelines for Renewing Operators' Licenses
NeRWA Contact Information
National Rural Water Association Water Rally 202021

"Nebraska Good Water News" is a quarterly publication of the NEBRASKA RURAL WATER ASSOCIATION, 3390 Ponderosa, Wahoo, Nebraska 68066. Phone 1-800-849-8039 or (402) 443-5216 or FAX (402) 443-5274. Copies are mailed to all member rural and municipal water operators, Federal and State Legislators, associates and individual members.

The NEBRASKA RURAL WATER ASSOCIATION is dedicated to the improvement and assistance of all public water systems in the State of Nebraska.

NOTICE: Nebraska Rural Water Association does not endorse any particular product or company in this publication. Membership and advertising should not be taken as an endorsement.

Board of Directors

President:

Tom Goulette, National Director 444 S. Main St. West Point, Nebraska 68788 (402) 372-2466

Vice-President:

Greg Bouc Box 353 Valparaiso, Nebraska 68065 (402) 784-2313

Secretary/Treasurer:

Larry Wennekamp 124 E. 11th Street Schuyler, Nebraska 68661 (402) 352-5444

George Wagner PO Box 226 Hooper, NE 68031 (402) 654-3649

Tom Grovijohn 226 N. Elm Dodge, NE 68633 (402) 693-2239

Jordon Bang PO Box 98 Bennet, NE 68317 (402) 782-3495

Cope Clark PO Box 518 Hartington, NE 68739 (402) 254-6758

Staff:

Amy Kemerling, Office Assistant
Salli Kemerling, Office Manager
Carol Jasa, Secretary
Randy Hellbusch, Circuit Rider
Mike Stanzel, Circuit Rider
Scott Finke, Circuit Rider
Barney Whatley, Source Water Protection Specialist
Adam German, Wastewater Tech
Charles Buckley, Wastewater Tech
Pat Petersen, Training Specialist
Ken Halvorsen, Systems Specialist

Website: www.nerwa.org

On the cover:

The Hooper Water Tower.

"This Institution is an Equal Opportunity Provider and Employer."

2020 TRAINING

Wastewater Certification Course

July 7-10 Mechanical CANCELLED

Wahoo

October 8-9 Lagoon

Wahoo

Backflow Prevention Cross-Connection Control Course - 5 Day

October 19-23

Wahoo

August 12 - Trenching & Shoring August 13 - Confined Space Entry *Wahoo, Nebraska*

Wastewater Training

May 13 Chadron CANCELLED

June 23 Ainsworth (Sustainability)

July 15 Kearney (Sewer Smoking)

August 12 Bridgeport (Lagoon Science)

September 9 Duncan (Lagoon Science)

October 1 Omaha

November 24 Auburn

(Sustainability)

December 22 Wahoo

Water Operator Training

May 5 Hartington CANCELLED

June 10 Sutton

July 7 Gordon

August 4 O'Neill

October 14 McCook

November 17 Mullen

December 9 Tecumseh

December 15 Wahoo

Backflow Continuing Education Training

September 8 McCool Jct.

September 10 Ord

October 13 So. Sioux

City

October 15 Atkinson

November 17 Wahoo

December 8 Mitchell

December 10 Cambridge

December 16 Wahoo



Nebraska Rural Water Association 3390 Ponderosa Wahoo, NE 68066 www.nerwa.org Fall Western Conference Gering, Nebraska September 1-3, 2020

Most of you are aware that we had to cancel some of our classes due to the virus stipulations on public gatherings. The classes from June to the end of the year are still scheduled. However, they will be cancelled if it deemed necessary.

We will try to reschedule as many of them as we can. We know you need to get continuing ed hours. Keep in mind that you can get most of your water and wastewater hours just by attending the annual conference.

Keep checking the training on our website for any additions or cancellations.

Add it to your bookmarks!

adiós Ju revoir do widzenia Aut Miedersehen adjö Tohau Vaarwel Goodbye!

FAREWELL TO MIKE LUCAS



We would like to say goodbye and good luck to Mike Lucas. Mike started at NeRWA as the Source Water Specialist in February 2010. In August 2011, he took over the Wastewater position and remained the Wastewater Technician until he retired March 31st of this year. He has been a great asset to the NeRWA team and has possessed a wealth of knowledge. He will be missed. We hope Mike enjoys his retirement — he certainly deserves it.



Chris Johnson Lee Dunn Matt Moul

Relationships • Technology • Service

Location:

4428 South 108th Street Omaha, NE 68137 (402) 551-7995 (402) 553-5879 Fax

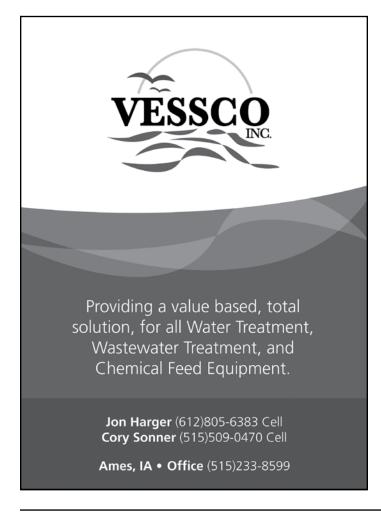
Municipal Automation & Control

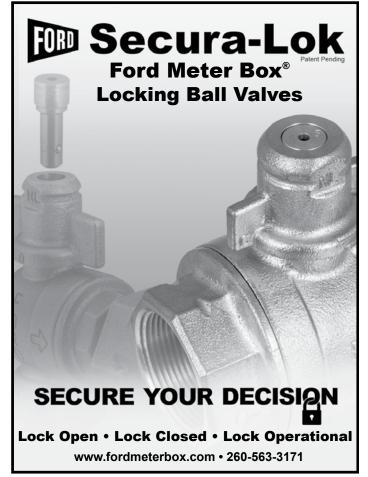
Design, Build, Service municipal automation.com

WATER / WASTEWATER

CONTROL SYSTEMS

211 N. Tyler PO Box 393 Elm Creek, NE 68836 Office/Fax: (308) 856-4730 Bill Simmerman - Owner Cell: (308) 233-4729 bill.s@municipalautomation.com







Asset Management – A Big Part of Capacity Development

By Randy Hellbusch, Circuit Rider

Capacity Development, as most all of us know, is the emphasis of NHHS and EPA's drinking water program. The three aspects of Capacity Development are Technical, Managerial and Financial. I have always professed that the latter mentioned, Financial, is the real key. If you don't have the finances, you most likely don't have the Technical expertise or the Managerial capabilities to run a water system.

Looking more closely, you really can't have a true financial picture of your system without proper management. To understand what kind of money is really needed to keep the system in optimal shape, you first must understand what shape the system is in at the present time. This is where recordkeeping is crucial. Records of when lines were installed or repaired, hydrants flushed, valves exercised, meters installed or tested and tank painted or cleaned are vital to know the true shape of your water system and to understand what kind of expenses you are facing in the near future.

Let's assume, and I know that this is a <u>big assumption</u>, that everyone has excellent records of all of the installations and repairs of the system. How do you best use this information to manage your assets? The following table shows the typical life expectancies of various water system components. Keep in mind that a number of factors can affect how long a certain asset will last. This is where good recordkeeping is crucial. If an item has been well maintained and serviced, it will have a greater life expectancy. Excessive use and environmental conditions, such as poor water quality, can reduce the life expectancy.

One asset that often is not accounted for is the water storage facility. The table (right) shows an elevated tank is expected to last 80 years. That is if it is properly maintained. Tower coatings are constantly improving and lasting longer than ever before, but like all products, with better quality comes a higher price. Ten years ago, it was suggested that a 100,000-gallon, elevated tank would cost around \$5,000 a year on average for inspection, repair and coatings. We are now seeing those cost more around the \$10,000 range.

Very few systems that we do rate studies for are including a water tower reserve for when the tank needs repainting. The tank may only need painting every 25 years or so but the cost often exceeds \$200,000. If the money hasn't been allocated for this it can be a tremendous blow to the water system financially.

To determine the adjusted useful life of an asset, use the table (below) and adjust according to current age and condition of the equipment. Once you have determined the remaining useful life of all components of your system, it is time to start planning.

Now that you have an idea how long you expect each component to last, a little research will tell you what it is going to cost to replace or repair it. Parts suppliers, well drillers, tank contractors, engineers, etc., can be very helpful in this process.

Now that you know how much time you have and an estimated cost, you can calculate how much money should be set aside each year to have the financial resources to rehabilitate and/or replace each component when necessary.

Unless your water system is in better shape than most, you will probably also have to prioritize. Decide which item is most critical and budget accordingly. Once again, good records are crucial. They will help convince the water board or City Council that these items definitely need to be budgeted for.

If NeRWA can be of assistance with this issue or any other aspect of your water system don't hesitate to give us a call.

SYSTEM COMPONENT	AVERAGE USEFUL LIFE
Wells	40 years
Pumping Equipment	10 years
Disinfection Equipment	5 years
Elevated Storage	80 years
Valves	35 years
Mechanical Valves	15 years
Computer Equipment	5 years
Electrical Transformers/Switchgear	20 years
Motor Controls/Variable Frequency Dri	ives 10 years
Distribution System (pipes)	50 years
Hydrants	40 years
Meters	20 years

NeRWA Update

By Salli Kemerling, Office Manager

We are all experiencing something we have not gone through before. We are not sure how it will all turn out. It is very important to follow all the guidelines on public gatherings or stay inside. One case turns into hundreds, 100 cases turn into thousands. Please be careful, wash your hands, sanitize everything and don't go anywhere.

The NeRWA office is locked. I am in the office every day. The field staff is working from their homes. However, if you need anything or have an emergency do not hesitate to call me or one of them. If you do call one of them for assistance, have only one person meet with them if possible. We want to continue to assist our membership while keeping all our staff safe.

We have had to cancel a number of our classes. We will try to reschedule as many of them as we can. The classes for May are cancelled. Watch our website for updates on training for the upcoming months.

We would like to know if any operators or clerks would be willing to volunteer at a nearby town if that town lost their staffing due to the virus. If you would like to volunteer, call or email myself or any of the field staff. Contact information is in the back of the magazine. I email training, updates, and anything of interest to our members. If you are not receiving emails and would like to be added to the email list, send me your email. Thank for your cooperation during this time.



ADVANCED CONSULTING ENGINEERING SERVICES

Civil Engineers • Surveyors

133 W. Washington St. • P.O. Box 218 West Point, NE 68788 Phone: (402) 372-1923

NeRWA Issue 2/2020 Page 5



Drawdowns Made Simple

By Mike Stanzel, Circuit Rider

Over these past few winter months, I have had a few calls from operators requesting training on how to perform drawdown readings. So, I thought since this requirement is very often overlooked, I would give everyone a refresher. Nebraska Title 179 section 22 -10 reads as follows:

"Measure and record static water levels and pumping water levels, and calculate available drawdown in each active well at a frequency of no less than once every three months from October 1 through April 30 of each year, and at a frequency of no less than once per month from May 1 through September 30 of each year. Static and pumping levels must be expressed as the distance in feet from the measuring point at the upper terminus of the well to the water level in the well. Available drawdown must be expressed as the distance in feet between the static water level and the top of the well screen or pump intake whichever is located nearer to the static water level."

There are a couple of different methods to take well water level readings. One way is to drop a well sounder down the casing vent. A well sounder transmits an audible sound, or illuminates a light, or both, when the end of the cable touches the water. The cable is marked to indicate depth. Before using a sounder always be sure to properly disinfect the cable. To record static water level, simply drop the sounder down the well when the well is not running. When the cable reaches the water, record the depth. This reading will be your static water level. To record the pumping water level, do the same thing, only let the well run for several minutes first. This reading will be the pumping water level.

There are some problems you may want to consider before using a well sounder. On some types of line shaft turbine wells it is impossible to get a sounder down the casing vent. If you have a submersible well with a pitless adapter you will have to remove the sanitary cap every time to check the water levels. Any time you remove the casing vent to insert the sounder, or break the sanitary seal on a submersible well, you are running the risk of contaminating the well with bacteria.

The other method to measure the water levels in your well is by the use of an airline. There are a few things you have to know before you can use this method.

1) You will need to know the length of the airline. If you don't know the length of the airline, call your well driller.

They should be able to tell you. If there are no records of the airline length give us a call. If we can sound the well, we should be able to determine the length. Once the airline length has been determined, write it on the face of the drawdown gauge for future reference.

- 2) You will need a working drawdown gauge. I would recommend that you get a gauge that is marked with feet of water and psi. Ignore the psi reading, unless you want to convert psi into feet of water every time you check the water levels in your wells.
- 3) You will need a way to pressurize the airline. You can use an air bubble, or a bicycle tire pump works just as well. To determine the static water level, after pressurizing the airline, watch where the needle on the gauge stops. Write down this reading. Subtract this number from the airline length; the answer is your static water level. For example, the airline length in my well is 100 feet. After pressurizing the drawdown gauge, it reads 40 feet; 100 feet minus 40 feet equals 60 feet. The static water level in my well is 60 feet.

To determine pumping water level, follow the same steps only turn the well on and let it run for several minutes first. For example, my well has been running for 10 minutes. After pressurizing the drawdown gauge my reading is 30 feet; 100 feet minus 30 feet equals 70 feet. My pumping water level is 70 feet. The drawdown in this particular well is 10 feet.

According to the proposed regulations you will also have to calculate and record the available drawdown. To determine this, you need to know the height of the pump setting and the distance to the top of the screen whichever is nearest the surface. Your well logs, or well registration, should have this information for you.

For example, according to my well logs the top of the screen in my well is 110 feet; 110 feet minus static level of 60 feet equals 50 feet of available drawdown.

You will be required to record this information at least monthly during the summer months, and at least quarterly during the fall, winter and spring.

If you would like some help with your well water levels please give me a call. I would be happy to come out and train you on this procedure.

Different Source Water Plans

By Barney Whatley, Source Water Protection Specialist

Not all Source
Water plans are
the same. There is
a different approach
that needs to be taken,

which is dependent on what is included within the source water protection area. These differences will affect the contents of the plan, the approach being taken for implementation and how the public should be a part of the plan. These approaches include voluntary versus regulatory management, past and future protection activities and publicizing the resources available to the landowners and the residents and customers of the water system.

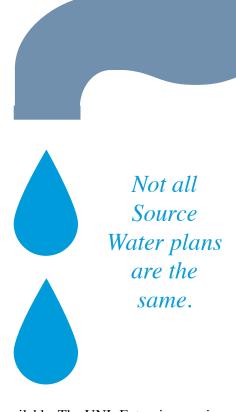
When considering whether to use voluntary or regulatory tools for the protection of the source of drinking water for a system, it must first be determined whether the system has the ability to regulate land uses within the protection area. If the system's wells or other water source is not within the zoning limits of that community, direct regulatory measures cannot be utilized. If the county has zoning, it is possible that they might have, or be willing to add wellhead protection overlays to the zoning regulations. This would allow the system to have input into what should be permitted uses, conditional uses or prohibited uses. In many cases where counties have overlay zones, they will not enforce



the requirements of those zones. The county leaves the enforcement to the entity that will benefit from the zoning—the owner of the water system. If the municipal zoning limits encompass the source water protection area, the municipality can set up their own zoning regulations to protect their future water source. Care must be taken to include non-residents in the zoning process so as not to be overregulating landowners who are not represented on the zoning board.

When writing a source protection plan, past activities are included to show the resolve of the system to be proactive in the process. The person completing the plan likely is unaware of any past activities related to this protection, so it is the responsibility of the system personnel to inform them of the activities. There are also other events that can be held in the area to keep the public focused on the protection of their water. These activities can include a "test your water" for nitrates event or Water Week poster events. Getting the school and other interested community members involved in the planning of these types of activities can spark public interest in the plan.

There are also a number organizations that offer educational and financial assistance implementing source water plans. NRDs and the Natural Resource Conservation Service (NRCS) have many cost share programs that can assist systems in protecting their future source of drinking water. Decommissioning abandoned wells, planting and maintaining buffer zones and the Conservation Reserve Program are some of the resources that are



available. The UNL Extension service also has a number of informational brochures that can assist homeowners in applying the correct amounts of fertilizers and planting gardens with native plants that require less watering.

Although there are people willing to assist in the compiling of a source water protection plan for a system, it is important that the citizens and system personnel take an active part in producing the plan for the system. Landowners who are not municipal residents should also be included in the preparation of the plan. This will help to avoid hurt feelings and conflict during the preparation and implementation of the plan.



What a Week!

By Pat Petersen, Training Specialist

As I sit here writing this article, I try to think back to what a great week we had for the Nebraska Rural Water Association's 43rd Annual Conference...the more I think about it, the more amazing I feel. On the verge of global pandemic: operators, engineers, exhibitors, sponsors, presenters, and Department of Health and Human Services staff were there; everyone was there! For one reason—to support the Nebraska Rural Water Association! In my nine years of planning a conference, I feel that this conference was one of our best! Although everyone had other things lurking in the back of their minds, the show went on, and it went well!

Tom Goulette, president of the Rural Water Association, greeted all attendees and introduced our Keynote Speaker, Mr. Don VanVeldhuizen from USA Blue Book. Don did an amazing job of relating to all of the operators and definitely let them know how important their jobs really are! Drinking Water Administrator Sue Dempsey gave an update of current regulations and the possibility of changes to come. The floods of 2019 were the next agenda item. Two area field reps, Dave Jundt and Rich Koenig, gave an in-depth presentation on how their areas were not only affected but actually devastated! Two operators that felt the unbelievable devastation also shared in the discussion. Jody Kaczor with Boyd County Rural Water #2 (also last year's operator of the year recipient) and Ken Swanson with the City of Auburn shared their stories of the floods. Thank you all, it was an eye-opening presentation. Dennis Watts, representing NeWARN finished our busy Monday. NeWARN is a vital tool used for small communities to share tools, equipment, and personnel in the time of emergencies or a disaster.

After a delicious meal, everyone in attendance was invited to the Big Apple Bowling Center for a night of fun. Miller and Associates took the lead in the planning of the fun night event. Other contributors were JEO Consulting Engineers, Sargent Drilling, HOA, and Nebraska Rural Water. This event was well attended and everyone seemed to have a very good evening. A huge thank-you to all who contributed.

Tuesday of the conference is always the "biggest" of learning days for operators. Operators were given several choices of classes including water, backflow, wastewater, and well driller hours. Six hours of continuing education can be accumulated on Tuesday alone. After the day of learning, operators were treated to a social hour sponsored by Core and Main. This social hour continues to be one of the best networking phases of the conference, as operators can sip on a drink of their choice and talk water and wastewater with whoever may walk by.

Following the social hour, the tables were set for a wonderful meal, awards banquet, and some music. DHHS gave away two awards during the evening. Nate Taylor with Peoples Service was given the Outstanding Operator Award. The award was presented by DHHS Field Representative Tim Thares. Congratulations Nate, and keep up the good work! The next award given was a special award to DHHS Field Representative Bob Byrkit. Years ago, Ralph Naber had nominated Mr. Byrkit for the Outstanding Operator Award for his work at the Village of Nelson, but was unable to receive it because he had just taken a new job, DHHS Field Representative, which is the position he holds today. Recently Bob had announced that he would be retiring in May of 2020, so Ralph wanted to make the special award announcement at the conference. Congratulations, Bob, on your Outstanding Operator of the Year Award, but most of all, enjoy your retirement! We at Rural Water will miss working with you! Ken Swanson, with the City of Auburn Utilities, was given an award from NeWARN for their cooperation and hard work during the floods of 2019. Two more highly anticipated awards were left to be presented, Best Tasting Drinking Water and the highly sought after award, Russ Topp, Doing It Right Award.

After a close race, the dust settled and the City of Franklin was named this year's "best tasting water" for the State of Nebraska. Congratulations to Drew and his crew. We will be submitting a water sample from Franklin into the national contest which is held in Washington, DC, in February.

Every year the Nebraska Rural Water Association gives a prestigious award to an operator that is "doing it right." The award is named after Circuit Rider Russell Topp whose motto was "If you're going to do it, do it right." This year's recipient was Mr. Andrew Ditter from the City of Genoa. It's always a pleasure to help Andy out when he calls. You're always going to learn something about our profession when you get to sit and visit with Andy. He is one of the best and very deserving of the Russ Topp Award. Congratulations Andy!!

Following all of the award presentations, once again the Chad Lee Band took the stage. Chad and Keith can play some good tunes just to keep you tapping your toes, but calm enough to allow everyone to visit about their busy day.

Wednesday began with the annual business meeting and operator breakfast. By this time the COVID-19 Virus had gotten everyone's attention and was the talk of the breakfast. Although the pandemic was bearing down on the states, Nebraska operators stayed in attendance at the conference until the bitter end. As I recall back to my first paragraph, you were there for us, the Nebraska Rural Water Association, as we will be there for you for anything. A very high percentage of operators are first responders with their local fire departments, so once again they may be called to ongoing duty when they return to their systems.

Not only the support of the operators for the association but the support within the association was very visible as Wednesday was winding down. After getting Salli and Amy safely on their way home, we had one more hour to finish up the conference. I personally had another thing on my mind. My son's basketball team had qualified for the Nebraska State Boys Basketball Tournament and I didn't want to miss anything. The last class of the day had just started and my co-workers Mike Stanzel, Randy Hellbusch, Scott Finke, Charles Buckley, Barney Whatley, and Ken Halverson said,

ENGINEERING
ARCHITECTURE
SURVEYING
PLANNING

Jeo.com | 800.723.8567

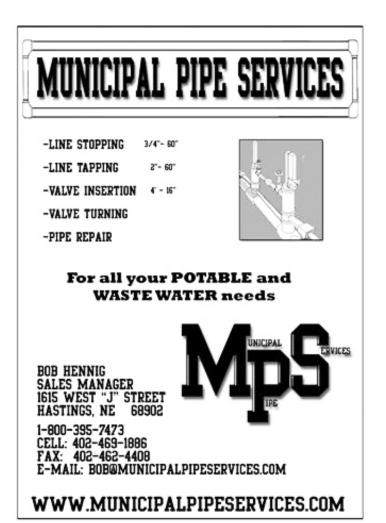
Water infrastructure
that works for you.

Rate Studies & Flow Analysis | System Mapping
Booster Stations | Rural Water Districts
Storage | Wells & Transmission Mains
Distribution Mains | Water Treatment

"Let's get this stuff loaded up so you can get out of here to support your son," and we did! This team that I work with is second to none! I apologize to all of the operators that were still there that I didn't get to say thank you for coming and have a safe trip home—I owe you one! Another co-worker that I'm sure would have made it possible for me to leave when I needed to is Mike Lucas. Mike was feeling a bit under the weather but I'm sure once he gets to feeling better, we will see him at the NeRWA classes and conferences. We missed you Mike!

Finally, thank you exhibitors, sponsors, operators, presenters, and co-workers for a fun, wonderful conference. We are a team—a great team! Let's all work together to get our state back to normal as soon as we can. Please, stay safe, but most of all stay healthy! Just for fun, my son's team received 3rd place at the boys' state basketball tournament. Wow, what a week!

PLEASE TURN THE PAGE TO SEE PHOTOS FROM OUR 43RD ANNUAL CONFERENCE!



2020 Nebraska Rural Water Ass





Conference Sessions



Award Presentations















Speakers and Presenters















































sociation Conference Highlights





























































What a Difference a Year Makes

By Scott Finke, Circuit Rider

Another spring conference has come and gone, and what a great job Pat did on the conference. To all the vendors, speakers, sponsors, to the venue for the food—a job well done.

Just think, last year we were going home to snow in the west and floods in the north and east. This year we all came home to the outbreak of Covid-19. I, along with all other NeRWA staff, hope everyone is staying safe and at home when possible. With the village offices being locked up, the water operators are still having to make sure everyone has

the past few months to get caught up from 2019. If you have a USDA loan with the assessment due in 2020, I will most likely be getting in contact with you. You can also do them yourself. But remember, they are due every three years.

The warm weather is arriving so it is time for me to get out

water, and the NeRWA staff is still here to help if you need

anything. I have been doing vulnerability assessments for

The warm weather is arriving so it is time for me to get out and start doing leak surveys. I will be getting in touch with operators who need surveys done. I will also be available for valve exercising. If you want a leak survey done or have your valves exercised, please let us know. We will be more than happy to help you out.

I was able to drive up to Boyd County RWD #2 to do a vulnerability assessment and I saw the devastation at the Spencer Dam from the floods last year. After that, I crossed the river at Niobrara and it was heartbreaking to see all the sand and destruction that the floods caused. It is amazing that Nebraskans have bounced back from such a horrible disaster. I hope everything, and everyone, is getting back to normal.

Here are some interesting facts you might not know: 1. In one year, the average American residence uses over 100,000 gallons of water (indoors and outdoors). 2. Americans drink more than 1 billion glasses of tap water per day. 3. Ten percent of homes leak at least 90 gallons of water per day. Those are just some of the many interesting facts about water.

Stay safe in these uncertain times and make sure to follow the guidelines put in place by our leaders on the local, state, and federal levels. We are all in this together. If you need to get in touch with me, my number is 402-607-2249.

Sargent Drilling Co.

- Test Well Drilling
- Water Well Design and Construction
- Complete Pump Machining Facility
- Pump Repair
- Loaner Motor Service
- Pump Test Labs
- Video Surveying
- Acidizing and Chemical Treatment
- Sonar Jetting



Complete Municipal Water Well and Pump Service in Nebraska, Wyoming, Iowa, Kansas, Missouri, Colorado, & South Dakota

24 Hour Emergency Service

MUNICIPAL AND INDUSTRIAL DIVISION

Broken Bow Office

PO Box 627, 263 South 23rd Broken Bow, NE 68822

Gary McCracken, Branch Manager Shad Yarrington, Salesman

Office: (308) 872-5125 After Hours: (308) 870-0138

Geneva Office

PO Box 367, 846 South 13th Geneva, NE 68361

Doug Yantzie, Municipal Manager

Office: (888) 496-3902 After Hours: (402) 759-2929



By means of water, we give life to everything.

— KORAN

PAGE 12 ISSUE 2/2020 NERWA

Greetings

By Adam German, Wastewater Technician

Greetings all, my name is Adam German and I am the new Wastewater Technician with the Nebraska Rural Water Association. For the past eight years I have been the utilities superintendent for the village of Cortland. You may recognize me if you frequented the annual water conference in Kearney. I was able to raise the "Nebraska's Best Tasting" water trophy above my bald head on two separate occasions. If I remember correctly, on back-to-back years. I haven't done any research but I'm pretty sure that's a record. I figured I would throw that comment into this article because it makes a few water operators cringe with jealousy.

Back in August of 2012, I applied to be the Cortland Utilities Superintendent. When I got the job I was ecstatic. I would be close to home, have holidays and weekends off, paid vacation and a great insurance plan. I figured I would do a little mowing, a little snow-pushing, and do whatever I could to keep the town flowing. I had no idea what I was in for. In 2012, Cortland was in the process of building a new water main around town, a new well, and installing a brand new 250,000-gallon water tower. The old water tower would have to come down when the new one went into service. Cortland has two different lagoons, one on each side of the highway. I quickly learned that both lagoons were full and that the NDEQ really frowns when lagoons run over and discharge in an unorganized manner. You now know why I have no hair on my head. I was thrown into a pretty major storm. I found myself a little stressed and was questioning my career choice.

That's when I met Russ Topp and Mike Lucas and when I first learned about the NeRWA. Cortland was in a bit of a bind with the DHHS and because of coliform hits had to chlorinate the water, and take residual readings on a daily basis. Any time I had a question, Russ would always pick up his phone to provide guidance; and more often than not he would show up in town and happily answer my questions about Stenner pumps or do the math to make sure I was chlorinating properly.

Obviously the lagoons were going to be a major issue very soon and Mike Lucas (though residing clear out in Broken Bow), would answer all my calls and show up on-site to walk me through the discharging process, the influent sampling, and even gave me a heads-up on what would and would not pass in the event of a surprise inspection from the NDEQ. I was floored. I was relieved. I remember thinking how grateful

I was that they were around. I also remember thinking that it sure seemed like they both liked their jobs quite a bit.

As the years went by, I got to meet Pat Petersen, Barney Whatley, Mike Stanzel, and Randy Hellbusch, all of whom were always more than willing to share their expertise and happy to help life get a little easier in Cortland. Cortland has had new water maps made, water/sewer rates studied, valves GPS'd, and even sewer lines smoked—all thanks to the NeRWA and their fine staff. It wasn't too long ago that I said to myself... "Self, you may want to try to join that team if you ever get the chance." The door opened and I applied. I am really looking forward to the road ahead. I have a lot to learn yet. I know that I have big shoes to fill. Mike Lucas really knew the ins and outs of the business and I want to thank him for all the help given to me throughout my career in Cortland.

I'll be hitting the road very soon; I am excited to meet all of the essential people working daily to keep our state's water safe. I'm just as excited to be working with the NeRWA. Stay safe out there.





By Charles Buckley, Wastewater Technician

- 1. What is the reason for treating wastewater?
 - A. Public health
 - B. Protect downstream water bodies
 - C. Aquatic life
 - D. All the above
- 2. What is the most common size of a sanitary sewer?
 - A. 4"
 - B. 8"
 - C. 12"
 - D. 24"
- 3. What is the best way to know where to dig to fix a broken section of sewer line?
 - A. Look for a void in the ground
 - B. Witching
 - C. Camera the line and measure the distance to the break
 - D. Repair the entire line, manhole-to-manhole
- 4. What is not a pathogenic bacteria?
 - A. Salmonella
 - B. Typhoid Fever
 - C. Tetanus
 - D. Hepatitis
- 5. What is the main reason cities found the need for wastewater treatment?
 - A. Odor control
 - B. Make fertilizer from sludge
 - C. Disease
 - D. Water recycling
- 6. Why is disinfection used?
 - A. Kill all bacteria in the effluent
 - B. Kill or inactivate pathogenic organisms
 - C. Lower TSS
 - D. Increase BOD

- 7. Large debris, such as sticks, rocks, large floating solids and rags, are categorized as:
 - A. Screenings
 - B. Scum
 - C. Grit
 - D. Floc
- 8. Why is ammonia a big concern in wastewater?
 - A. Because in the nitrification process, bacteria remove oxygen from the water
 - B. Enhances erectile disfunction
 - C. Changes the color of the water
 - D. It makes water radioactive
- 9. Which device is used to measure the flow of wastewater?
 - A. Comminutor
 - B. Sluice gate
 - C. Rotameter
 - D. Parshall flume
- 10. What term means disease-causing?
 - A. Allergenic
 - B. Pathogenic
 - C. Susceptible
 - D. Corona



Summary of Evaluations NeRWA Kearney Conference • March 9-11, 2020

TOTAL EVALUATIONS RECEIVED - 107

QUESTION	<u>‡1</u> – Please	circle	which	best
describes you	r position:			

a.	Operator/Manager	91
b.	Administrative	(
c.	Board Member	3
d.	Plumber	
e.	Lawn Service	
f.	State/Federal Rep.	
g.	Clerk	
ĥ.	Other:	(
	- Utilities Director	

- Engineer
- Maintenance
- Water Well Monitoring Tech.

OUESTION #2 - Why do you attend the NeRWA conference?

CI	tivizi conjerence.	
a.	Training classes	24
b.	Prizes/entertainment	1
c.	Vendors	10
d.	Chance to meet other operators	13
e.	All of the above	97

QUESTION #3 - Things you liked and why?

- Vendors, speakers.
- I thought you guys had some good/ informative speakers.
- Meals excellent; motels close; training; meet and talking with other operators.
- Love the education.
- Some of the speakers were very informative and entertaining; meals very good.
- · Everything was good.
- All the vendors.
- · Training sessions were all great; vendors very helpful & informative; always like the speakers, food is excellent, motels are great.
- The venue has been very good since it was moved. The service is top notch, accommodations great and meals excellent.
- Good food, great people.
- Event center is nice and clean and staff is friendly.
- The venue the perfect place for this conference.
- Presentations from Don VanVeldhuizen and Rich Koenig. Kept you interested in the topics which were relevant to daily operations.
- Topics covered and details.
- Good classes.
- Facility is great, food was great, hotels are great, classes were ok. Pat does a great job.
- The vendors, meals and training.
- Everything went well well organized.
- Excellent keynote speaker, excellent meals, excellent classes.
- As usual, excellent conference; meals were very good.
- All things great location.
- Great location for conference; good speakers.

- Vendors & presentations were great especially when speaker engages the audience.
- This year seemed better than last year regarding the training; speakers were interesting and kept one focused on what they were saying.
- Great sessions, great good, good to see such a big crowd.
- Vendors and classes.
- · My first conference and it was awesome. Great for the industry.
- · Great location.
- · Well organized.
- · Clean, well organized, good food, good speakers.
- Variety of classes. NeRWA staff are friendly and helpful.
- First time interesting.
- Training sessions, vendors, speakers.
- It is all great.
- · Excellent facility, excellent organization to work with (NeRWA).
- Everything was good.
- Everything was nice rooms, meals, vendors, speakers.
- Options for different classes and the length of the classes.
- The place.
- Lots of information on things we deal with on a daily basis; meals are great.
- All Good.
- Rural water board members, most speakers, fun and knowledge.
- Training time schedule is great. Liked the daily menus in the packet.
- Meals were great; good training classes.
- Backflow class, compliance for DHHS.
- The classes very knowledgeable.
- Training sessions, vendors, speakers.
- Food.
- Always have a good time attending this conference; like the venue, training sessions, meals and vendors. Thanks for a great conference.
- Nice facility, good meals.
- Food was incredible! Facility is very nice; staff is so kind and helpful.
- Facility is great; training sessions informative.
- Don VanVeldhuizen as a speaker; could hear, entertaining and informative.
- Nice place; good food.
- Meals very good; close hotels and nice facility.
- Very well-run conference; organized and professional. Good venue.
- All was very good
- Good food. Don VanVeldhuizen is a very good speaker.
- Everything was good.
- Excellent topics, learned a lot. Vendors ordered parts; NeRWA staff and DHHS staff answered a lot of questions.
- It was all pretty good.
- Don't change anything.

- Everything a break from work.
- Venue, close proximity to restaurants and night life.
- Food.
- Very smooth and well managed. Good food.
- Excellent conference all the way around.
- Classes, meeting with other operators, motels and meals.
- All good.
- Everything was amazing. Had a wonderful
- Great sessions.
- Good venue, very informative speakers, good food.
- Good sessions & food, good rooms,
- Talking to all the NeRWA people and other operators.
- Food was great.
- Everything.
- Food was excellent as always; venue is top
- Continuing ed hours all in one place.
- Information and knowledge from speakers, vendors and other operators.
- Learning new regs, classes.
- Venue is great, great classes, good meals.
- Presentations were good.
- Great location as usual. Lots of places to eat close by. Training sessions and speakers were very good. Motels were clean and very good; plenty of room.
- Food, your staff, classes all good.
- Speakers. Well organized conference.
- Classes and vendors; talking to NeRWA
- Informative, reassurance, supper.
- The Dutchman classes he's been there and done it all and he means what he teaches. The venue is a great place; entertainment great, motels great, and NeRWA great. Nothing but great.
- Good class selection and great meals.
- Location is great.
- All pros the venue and food are great. Well planned out.
- Speakers were great, entertainment superb, food was above my expectations, good information.
- Everything.
- Training sessions.
- Chance to meet with other operators and the classes.
- Everything. Great to get operators together to train and learn.
- Liked all the topics.
- Fun night was great; the venue is close to hotels; the meals were good. The best conference for water operators.
- Meeting other operators to talk about problems; the vendors' new products that come out; new regulations and rules updates.
- I would give the conference a 5 star review.

continued on page 19



Situation Awareness

By Ken Halvorsen, Systems Specialist



Our state is unique in many ways. One of those is the Biocontainment Unit at Nebraska Medicine. It was created in 2005 as a way to treat patients safely in the event of biological terrorism or an infectious pandemic. There are only a handful of such places in the United States and the unit in Omaha is the largest, with enough beds to treat ten patients. It was utilized in 2014 when

American citizens were needing treatment during the Ebola outbreak in West Africa. This year when the first of the patients feared to be infected with the novel coronavirus, Nebraska Medicine was again the place to be. Staff trained for many years in order to be a safe environment, not only for patients, but also for staff caring for those folks.

Training and vigilance are also important means to safeguard another of Nebraska's unique resources, water. Clean, safe water is vital for the health of the citizens of Nebraska. It is the responsibility of you, as water operators and managers, to train and be aware of any problems that may arise within your area. Situational awareness is one of the tools you can employ to see problems as soon as they arise within your system. You need to develop a radar to keep on top of situations. You may now be thinking of SCADA and that would be correct. SCADA (system control and data acquisition) is one of the tools to use to achieve situational awareness, but not the only one. Problems with your water system can come from many directions.

Whether or not your system has SCADA, you need to look at all your available resources. It is important to review all the components of your system and determine what possible threats may occur. This process would be much like the one used when developing your Emergency Response Plan, and begin to develop a strategy to monitor for potential threats.

Is your system dependent on a stream or river? If the answer is yes, are you monitoring that source? How has the

2019 flooding affected your water source? Are there other systems that depend on this same source upriver from you? Are they monitoring the river? Do you and your surrounding systems share information and resources? Have you created a cooperative river watch network? Do you have a watershed protection plan?

Are you a groundwater system? How is your groundwater protected? What are the threats to your system? Are you using situational awareness to protect the safety of your water for all your customers?

What plans do you have in place in the event of a natural or manmade disaster? Are you working with other systems on a proposal in the event wells in one of the systems become compromised?

This is only a small portion of the needs for situational awareness. There are many possible risks to systems that would be aided with the use of an awareness plan. Other components of your utility system should be added to your plan such as: distribution and storage, treatment, pump stations and so on. If you have a wastewater system do not forget to add that as well.

A SCADA plan is helpful, but it cannot do all the work. When you are in your pump room, listen to the way the pumps are sounding. You should do this every time you walk in; this way you will know how they should sound. Thus, when there is a problem the sound of the pump will alert you. Your ears and brain can be the best source for identifying a problem. Situational awareness does not need to be complicated; observation is the key!

Our major hospitals are not the only entity protecting the health of our citizens. Situational awareness of our water resource is a major tool for protecting public health. Nebraska's water resource needs to be protected by its operators and managers. Situational awareness is a tool you should have ready at all times. Nebraska Rural Water Association is here to help you with problems you may encounter along the way. You can contact Ken Halvorsen at 402-607-9750 or ken@nerwa.org.



Normally we would be thinking about heading west to Gering for the NeRWA's Fall Conference. We will go ahead and plan the conference with the hope that all this virus stuff will be over by then. The conference will be held September 1-3 at the Gering Civic Center. The fall conference will once again mix fun and relaxation with a chance to learn new things and gather much needed CEUs to renew your operator licenses.

There will be a pre-conference on Tuesday. Following the pre-conference is the golf tournament at the Riverview Golf and Country Club. This is set to begin at 2:30 p.m. and conclude around 6:00 p.m. Wednesday morning will start with the

bang of the annual trap shoot held at the Mitchell Valley Trap Club. This is scheduled to begin between 8:00 and 8:30 a.m. and conclude around 12:00 noon. After that, sessions will start. A social hour, banquet and operator award presentation will complete Wednesday. There will be a complimentary break fast served at 6:30 a.m. Thursday followed by a full day of training sessions.

More detailed information will be in the next issue of the magazine and also in a special conference mailing. Additionally, we send this information out by email. If you aren't getting our emails and would like to, send your email to salli@nerwa.org. If you have never attended the fall conference and you have the resources to do so, please try to make it to Gering. It is a mix of fun and learning. We hope to see you out west!



Quarantine Quiz Answer Key quiz can be found on page 14 1. D 2. B 3. C 4. D 5. C 6. B 7. A 8. A 9. D 10. B





NeRWA Scholarship Winners

We received many scholarship applications this year. As usual there are some very talented students out there. This year we chose three winners as they were all in the same category. They are:

- (1) David Stara, Son of Kevin Stara, Water Operator from the City of David City
- (2) Bailey McLaughlin, Daughter of Lacy McLaughlin, Office Manager from the City of Pawnee City
- (3) Cole Johnson, Son of Tom Johnson, Utilities Superintendent from the Village of Prague

The alternates are:

- (1) Jerica German, Daughter of Adam German, the Utilities Superintendent from the Village of Cortland
- (2) Alexis Schroeder, Daughter of Ron Schroeder, Utility Superintendent from the Village of Leigh.

Congratulations!



SUMMARY OF EVALUATIONS

continued from page 15

Love the location being as it's centrally located.

QUESTION #4 - Things you disliked and why?

- Noon meal should be better. Don't have happy hour before the evening meal, have it afterwards.
- Snacks with morning coffee could be better. Some booths had no one to visit with.
- · Have too much time between sessions.
- No casino in Nebraska.
- Would like country music.
- When discussing backflow we should be discussing what to do to keep people safe not because we are afraid of getting written up by the state.
- Some classes were boring.
- Seems like the same classes every year.
- · Can't think of one.
- Vendors not being set up on time or at their booth to ask questions.
- Would be nice to do something different in the evenings.
- Not long enough.
- Length of classes hard to stay awake.
- · Need more vendors.
- Would like to see backflow hours on Wednesday.

- Too much time between classes. Shorten breaks.
- Not really into being with so many people for such a long period of time. Fun night isn't really my thing either.
- Still have attendees sitting in the back of the classroom talking to their neighbor. Ask them to leave.
- Don't like salespeople presenting classes.
- Go back to casino night.
- A new band on Tuesday night. Have an operator present a class maybe as a round table. Have the presenters use a microphone.
- Like printed handouts.
- Presenters who do not make themselves heard.
- · No seating at meals.
- Do not care about Fun Plex but like poker night.
- Don't really need to offer breakfast. Want casino night.
- Present a year in review.
- More info on sewer lagoons.
- Had a little trouble hearing some presenters.
- No Rural Water round table session.
- Some of the speakers need headphone mics hard to hear makes for unpleasant

training sessions.

- Due for a good comedian. Always talk about aging workforce. Some of these experienced operators need to do a session for the younger operators.
- Need to change things up a bit.
- Majority of us do not win anything.
- Sound systems in rooms sucked. Hard time hearing.
- No hands on for anything.
- No steak on Tuesday night. Band is too loud and not needed. Need comedian.
- · Next year a different band.
- Why complain these people do an outstanding job.
- Backflow all on one day. Need to spread out so we can attend a variety of classes.
- · Distance to get there.
- The date right after time change.
- Operators scanning into classes and then leave to go to another class.
- Different entertainment Vegas night.
- Don't do fun night.
- Don't like entertainment.
- Vendors don't have very many advertising giveaways.
- · Need more handouts.
- · Too many breaks.

GUIDELINES FOR RENEWING OPERATORS' LICENSES

This article addresses all fee-based training including all Wastewater certification, Backflow certification, Backflow continuing ed, Trenching and Confined Space classes and both conferences. Any class or conference that has a fee needs to be registered for by faxing a registration, mailing a registration or registering online. WE DO NOT TAKE ANY PHONE REGISTRATIONS OR EMAILS ASKING TO REGISTER SOMEONE FOR A FEE-BASED CLASS.

All water and backflow licenses needed to be renewed by December 31, 2019. The next license period is from January 1, 2020, to December 31, 2021.

The hours required for renewal for each license are listed below: (These hours are not something new.)

- 1. Water and backflow 2-year renewal period requiring 10 continuing ed hours. The end of the renewal period is always December 31 of odd numbered years. An easy way to remember this is just 5 hours per year. Start early in the renewal period to get your hours. The last three months of the second year get very busy. Always register early! We have people trying to register for classes in October thru December close to the date of the class. Truth is that the October, November and December classes are full 2 to 3 months before these classes begin. Then people are scrambling in the last months of the second year to get into classes and there just aren't any openings unless there is a cancellation.
- 2. <u>Wastewater</u> 2-year renewal with 20 continuing ed hours required. The end of the renewal period varies depending on when you get your license.

When you attend a class and get a certificate, keep that certificate in a place where you can easily find it. You get a certificate at every training class. You can use your certificates to prove you attended a class. If you lose a certificate, we will issue a second one. After that, a certificate will cost \$20

We send flyers for the training classes out to all our members. Classes are always published in our quarterly magazine which also is mailed to all our members. We publish a training calendar each year with all our classes on it which is available to all member operators. Our training calendar is on our website, www.nerwa.org. One of the best things for all operators to do is to bookmark this website to keep updated on class dates, where they are held and what is on the agendas. The agendas for the classes are posted about a month before the class starts. Our website is available to everyone, not just members. In those rare instances, any cancellations or rescheduled classes will also be on the website as soon as they are changed.

If you are not a member and would like to receive these flyers, you can become a member with our individual membership. This costs \$50/year. When you register online for any fee-based class, you can also pay online. If you choose not to pay, we will bill you. THERE IS ONE EXCEPTION: ANY backflow class that is held in the last 3 months of the renewal year needs to be paid for prior to the class. If payment is not received, it will be assumed that the person who registered is not attending the class and the space will made available to someone on the waiting list. The reason for this is that people register for classes, find out they have enough hours or something comes up, and they do not call to cancel. There are ALWAYS waiting lists for our Wahoo classes. We have ended up with available spaces in these classes on the day of the class and if we had known ahead we could've filled them with someone on the waiting lists.

Nebraska Good Water News

Nebraska Rural Water Association - 3390 Ponderosa Drive - Wahoo, NE 68066 Home | Office | Membership Info | Training | Annual Conference | Fall Conference

NEW

Contact NeRWA... ▼

NeRWA Staff

Water Circuit Rider I

Water Circuit Rider II

Water Circuit Rider III

Training Specialist

Wastewater Tech. I

Wastewater Tech. II

Sourcewater Protection
Specialist

Systems Specialist

Office Manager

Secretary

Board of Directors

Office Assistant





Informational Links

National Rural Water
USDA Rural Development
NE Public Water Supply
HHS License Information
SDWIS System Data
EPA Wastewater
EPA Drinking Water
Nebraska DEQ
League of Municipalities
Nebraska Section, AWWA
AWWA Library Reference Listings
NeRWA Associate Members

NeRWA Contact Information:

Nebraska Rural Water Association 3390 Ponderosa Street Wahoo, NE 68066

Office phone numbers: 800-849-8039

Amy Kemerling

Salli Kemerling

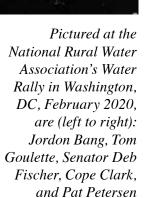
402-443-5216 Fax: 402-443-5274 Website: www.nerwa.org Email: office@nerwa.org

	Cell #
Charles Buckley	402-277-6632
Scott Finke	402-607-2249
Adam German	402-443-6157
Ken Halvorsen	402-607-9750
Randy Hellbusch	402-443-8535
Pat Petersen	402-277-6699
Mike Stanzel	402-672-9084
Barney Whatley	402-480-4297
Carol Jasa	



Email
buckley@nerwa.org
scott@nerwa.org
adam@nerwa.org
ken@nerwa.org
randy@nerwa.org
pat@nerwa.org
mike@nerwa.org
barney@nerwa.org
carol@nerwa.org
amy@nerwa.org
salli@nerwa.org







Water Rally 2020





We're here to help

For downloadable posters and other resources concerning the coronavirus go to

www.larmpool.org/coronavirus.html

As a Nebraska risk management pool, LARM provides excellent risk management coverages and services to Nebraska cities, villages and other governmental agencies. Call us at 402.742.2600



Nebraska Rural Water Association

3390 Ponderosa Wahoo, NE 68066 PRSRT STD
U.S. POSTAGE
PAID
MAIL U.S.A.



10707 S. 149th Street Omaha, Nebraska

"Local Service, Nationwide"

Sensus Meters & AMR Equipment
Smith-Blair Clamps & Couplings
Ford Meter Box Company
Watts/Febco Backflow Devices
Tyler Fittings & Valve Boxes
US Pipe Ductile Iron Pipe
AY McDonald Curb Boxes
Uni-Flange Adapter Flanges
Megalug Mechanical Joint Restraint
Star Pipe Products
McElroy Equipment Rental

Phone (800) 247-6811

American Flow Control Valves & Hydrants

JM Eagle PVC Pipe
PVC Round Meter Boxes
Hymax Couplings & EZ-Max Repair Clamps
Contech Construction Products
Cherne Testing Equipment
Live Tapping Services
Northern Pipe Products
Waterous Valves & Hydrants
ADS HDPE Corrugated Pipe
GPK Products

FAX (402) 896-6379