ServiceLine

The Official Publication of the South Dakota Association of Rural Water Systems

REPAIR VALVE RISERS WITHOUT A BACKHOE

ELECTRICAL SAFETY

SDARWS
PARTNERS WITH
WATERWORTH

THANK YOU ESSENTIAL WATER & WASTEWATER WORKERS!

Reimagine your water solutions.

Evolved.

When you are using water, you don't usually think about where it comes from. That's how it should be. Smart management of a precious resource. It's second nature at KLJ.





IN THIS ISSUE







SDARWS CORPORATE PARTNERS

Marsh & McLennan Agency, Inc.
Risk Administration Services
Dakota Pump & Control
Dakota Supply Group
Treatment Resources, Inc.
Banner Associates
Bartlett & West, Inc.
DGR Engineering
Maguire Iron, Inc.
Core and Main
Dakota Pump Inc.
CoBank
Milbank WinWater

AE₂S

- **5** From the SDARWS President
- **7** Operator Certification Training
- 9 SDARWS Staff Directory
- SDARWS to Host Free 1/2 Day Virtual Workshop
- 11 Free Cloth Face Masks for SD Water Personnel
- **13** COVID-19: Sustaining Operations
- **15** Meet our New Wastewater Tech
- 17 SDARWS Rural Water Open Information
- 21 Repair Valve Risers Without a Backhoe
- **25** Flatliners
- **26** Don't Get Shocked by a Lack of Electrical Safety Knowledge
- **29** Certification Questions
- **30** Waterworth Financial Management Tool
- **33** Photos From the Field
- **34** From the Executive Director
- **35** SDWARN First Responders Needed

Cover Photo: Pasque Flowers in the Badlands. Photo Credit iStock.com

ServiceLine is published bi-monthly by the South Dakota Association of Rural Water Systems. The contents of this publication may not be reproduced by any means, in whole or in part, without the prior written consent of SDARWS. SDARWS reserves the right to reject or edit any manuscripts received for publication. All submissions become the property of the South Dakota Association of Rural Water Systems unless otherwise specifically stated in this publication. Statements of fact and opinion are the responsibility of the authors alone and do not imply an opinion on the part of the South Dakota Association of Rural Water Systems. Advertisements and editorials do not represent official policies of the Association. Acceptance of advertising by SDARWS does not constitute endorsement of the advertiser, its products or services, nor does SDARWS make any claims or guarantees as to the accuracy or validity of advertisers' claims.

To submit editorial or advertising content, or to update your mailing information, please contact Jennifer Bame at 605-556-7219 or email jbame@sdarws.com.

SOUTH DAKOTA ASSOCIATION OF RURAL WATER SYSTEMS

P.O. Box 287, Madison, SD 57042 • Phone 605-556-7219, Fax 605.556.1497 • email: $info@sdarws.com \cdot www.sdarws.com Copyright 2020$

ServiceLine

IUNE 2020 | 3





S. Hwy. 15 • P.O. Box 350 Milbank, SD 57252 1-800-743-2972 Fax 605-432-5447

Large enough to handle any job, but small enough to care about yours.

- WATER PRODUCTS
- INDUSTRIAL PIPING
- WATER METER
 SYSTEMS
- PUMP SYSTEMS
- GEO TEXTILE FABRIC
- ROAD CASTINGS

4 | JUNE 2020 ServiceLine



FROM THE SDARWS PRESIDENT

RON GILLEN, SDARWS PRESIDENT

WATERWORTH

South Dakota Association of Rural Water Systems (SDARWS) in partnership with Waterworth are pleased to announce the Powered by Waterworth program.

Waterworth is financial management and rate setting software, designed specifically for water systems. Through this program, participating systems will receive affordable access to Waterworth's online platform, paired with training from technical support staff, to help you achieve more financially sustainable water and wastewater systems.

SDARWS understands that you are likely facing a lot of uncertainty as economic impacts of COVID-19 unfold, and you may have concerns about how this will affect the future operations of your water system. In an effort to help you gain confidence and clarity, SDARWS and Waterworth have agreed to offer 90-days free access to the Powered by Waterworth program.

Here's how it works:

- ■3-months free access. Receive 90-days complimentary access to Waterworth. No council or board approval necessary.
- Easy setup. Work with SDARWS support staff to develop a baseline financial model in just 2 hours using easy-to-collect information.
- COVID-19 impact modeling. Do you know what cashflow issues could be coming down the pipe? Use your baseline financial model to explore reduced revenue scenarios for residential and commercial customers due to COVID-19.
- More Efficient Decision Making. SDARWS support staff can provide assistance in presenting model findings to elected officials using remote technology. Waterworth's simple visualizations get everyone on the same page.
- Continue or cancel your choice. After the 90-day free trial period, you may choose to continue with a Waterworth annual subscription for \$1 per service population per year, capped at \$3495/yr.

This offer is available for a limited time and to a limited number of systems! First come, first served.

SDARWS and Waterworth are excited to bring you this opportunity and deliver on their joint mission of providing resources, training and expertise to small and rural water systems.

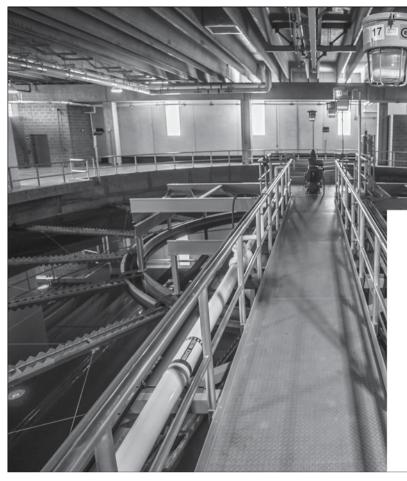
You can find more information about Waterworth on page 30 of this issue of ServiceLine. Contact the SDARWS office today at 605-556-7219 to claim this offer.

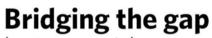
RURAL WATER OPEN

Join us on July 21st for the 34th Annual SDARWS 4-Person Scramble Golf Tournament at Elmwood in Sioux Falls. The tournament is a great opportunity to gather together with other Rural Water folks for a day of camaraderie and fun. You can register your four-person team online at sdarws.com/golf-tournament.html. All golfers need to be registered at the course by 8:30 am. Shotgun start is at 9:00 am. You can find more information on pages 17-19 including information on sponsorships. Note: SDARWS is monitoring the COVID-19 pandemic. If circumstances require the cancellation of the Rural Water Open, all registrants will be notified, and all registrations and sponsorships will be fully refunded. We hope to see you on the course!

WATER PRO

It isn't too early to start thinking about attending this year's WaterPro Conference in Phoenix, Arizona September 14-16, 2020. NRWA puts on a fantastic show which brings in hundreds of vendors and hosts informative training sessions in operations, management, boardsmanship and governance for those involved in water and wastewater utility systems – large and small, municipal and rural. WaterPro features expert speakers from across the water/wastewater industry. Want to hear about new USDA projects or EPA priorities? You can find out at the WaterPro Conference. The WaterPro exhibit hall is filled with vendors and service-providers dedicated to offering high-quality solutions for small and rural water utilities. Find out about all the best solutions for rural water today and tomorrow. For more information on this conference, including registration and hotel reservations, please visit waterproconference.org. Early Bird registration ends August 31, 2020. Note: the National Rural Water Association takes the health and safety of our members and event attendees very seriously. They are closely monitoring the COVID-19 health crisis and continue to evaluate their decisions in order to provide the safest option for you. At this time, they plan to continue with the 2020 WaterPro Conference as scheduled. However, if circumstances require the cancellation of the conference, all registrants will be notified and your registration fees will be fully refunded.



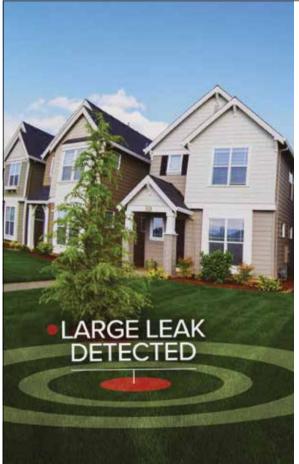


between idea + achievement

FDS

Sioux Falls 605.977.7740 Rapid City 605.791.6100

hdrinc.com



INDUSTRY LEADING BRANDS FROM THE INDUSTRY LEADING SUPPLIER.

We carry cutting-edge metering technology—capable of not only monitoring regular water usage, but identifying major leaks, backflow and potential tampering. To save time, money and resources, trust in metering solutions from Ferguson Waterworks.

For more information, email meters@ferguson.com



NEPTUNE TECHNOLOGY GROLP

FERGUSON WATERWORKS

BISMARCK | FARGO | SIOUX FALLS
FERGUSON.COM/METERS

©2020 Ferguson Enterprises, LLC 02201775833



OPERATOR CERTIFICATION TRAINING AND EXAMS

ONLINE TRAINING CLASS UPDATE

Due to the COVID-19 restrictions in place by the CDC, SDARWS has moved certification classes online. These online courses will be held on the same dates as the original courses.

Registration, especially for online courses is <u>required</u>. Registrants must give a viable email address. The email you receive upon registering will give you a link that will take you automatically to the website where you will have access to the class. You will most

likely have to download the Zoom app on your phone or tablet, or download the software extension if using a computer.

Online classes start at 8:00~a.m. Tuesday through Thursday, and end at approximately 4:30~p.m. on Tuesday and Wednesday and noon on Thursday.

It is very IMPORTANT that if you want to be included in this online training that you register on our website: sdarws.com and give us a viable email address.

Intermediate Water Treatment	June 2-4	Webinar by SDARWS
OpCert Exam CANCELLED	June 4-1:00 pm	Sioux Falls Ramkota Inn
OpCert Exam CANCELLED	June 9-12:30 pm	Pierre Matthew Center
Basic Wastewater Treatment	June 23-25	Webinar by SDARWS
Basic Water Treatment	July 7-9	Watertown-Ramkota/Events Center
OpCert Exam	July 9-1:00 pm	Watertown-Ramkota/Events Center**
Wastewater Collection	August 4-6	Aberdeen-Ramkota**
OpCert Exam	August 6-1:00 pm	Aberdeen-Ramkota
Water Distribution	August 18-20	Sioux Falls-Ramkota**
OpCert Exam	August 20-1:00 pm	Sioux Fallls-Ramkota
Intermediate Water Treatment	Sept 29-October 1	Rapid City-Ramkota**
OpCert Exam	October 1-1:00 pm	Rapid City-Ramkota

^{**} Tentative Location - The decision to switch to online training will be determined at a later date

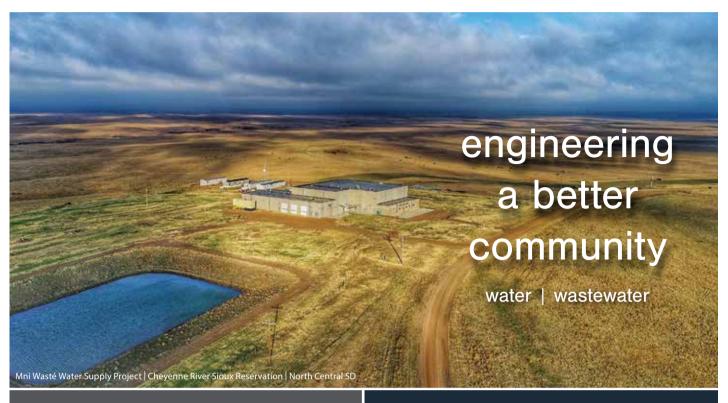
All dates are tentative based on number of applicants. All classes and exam sessions are tentative based on status of pandemic. More classes/exam sessions will be scheduled after the pandemic is over.

Certification exam applications must be submitted for ALL exams including retakes. Applications MUST be received by the Department of Environment and Natural Resources (DENR) at least two weeks

before the exam date, as required by the Operator Certification Rules (ARSD 74:21:02:40). Applicants will receive a confirmation of their exam receipt by the Department. Applications will be accepted via fax at 773-5286. Check or money orders made out to "DENR-Operator Certification" are required. Applications must be filled out completely as they are the sole source of information used to determine operator eligibility to take an exam.

For Study materials, visit: www.abccert.org/testing_services/ExamReferences.asp
For more information contact SDARWS Trainer Jim Zeck: 605-201-9568 or jzeck@sdarws.com

REGISTER FOR CLASSES ONLINE: go.activecalendar.com/sdarws



Brookings | Sioux Falls | Vermillion | Rapid City | Milbank 605.692.6342 | Toll Free 1.855.323.6342 www.bannerassociates.com



DAKOTA PUMPINE.



The Total Solution Water Pump Stations

Modular Water Booster Stations Grade Mounted Water Booster Stations Water Booster Pump Stations Water Control Vaults

Sewage Pump Stations

Wet Well Mounted Lift Stations Flooded Suction Lift Stations Self-Priming Lift Stations Obround Package Pump Stations





Why Prefabricated?

Fully factory tested
Ease of installation
Simplified design
Single source responsibility



Dakota Pump Offices:

po box 947 ~ 25524 413th Ave ~ Mitchell, SD 57301 ~ ph.605.996.6636 ~ fax. 605.996.6067 ~ dakotapump.com



8 | JUNE 2020

ServiceLine

SDARWS STAFF DIRECTORY



KURT PFEIFLE Executive Director kpfeifle@sdarws.com 605-204-0125



STEVE ATTEMA **Training Specialist** sattema@sdarws.com 605-270-1766



IIM ZECK Training Specialist izeck@sdarws.com 605-201-9568



MIKE MOELLER **Technical Assistance** Training Specialist mmoeller@sdarws.com 605-270-4989



NICK JACKSON West River Circuit Rider njackson@sdarws.com 605-641-4557



GREG GROSS East River Circuit Rider ggross@sdarws.com 605-201-6026



ROBYN BROTHERS Office Manager rbrothers@sdarws.com 605-556-7219



IEFF FOSSUM East River Circuit Rider ifossum@sdarws.com 605-201-9561



IEREMIAH CORBIN Source Water Protection Specialist jcorbin@sdarws.com 605-270-3894



BILL THORSON Technical Assistance Training Specialist bthorson@sdarws.com 605-201-0170



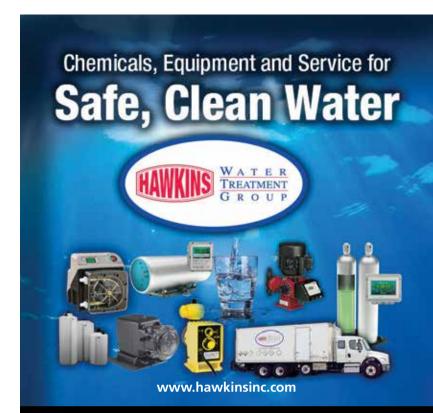
DANNY AYERS East River Wastewater **Technician** dayers@sdarws.com 605-291-2299



JENNIFER BAME Communications & **Marketing Coordinator** jbame@sdarws.com 605-556-7219



JERRY HEMEYER Temporary West River Wastewater Technician jhemeyer@sdarws.com 605-645-6488



Water Treatment

- Potable Water
- Raw Water Clarification
- Swimming Pools
- Boiler & Cooling Systems
- Wastewater
- Waste De-Watering
- Waste Settling Aids
- Collection Systems

Equipment:

- Chemical Injection Pumps
- Control and Monitoring Systems
- Chlorination Control Systems
- Chemical Feed Equipment

Black Hawk, SD 605.787.6881

Fargo, ND 701.293.9618

Sioux Falls, SD 605.368.5793

Washburn, ND 701.462.8588



& ASSOCIATES

ENGINEERS SURVEYORS GIS SERVICES

Schmucker, Paul, Nohr and Associates

2100 N. Sanborn Blvd – PO Box 398 Mitchell, SD 57301 Phone (605) 996-7761 FAX (605) 996-0015 www.spn-assoc.com Water • Wastewater • Storm Water • Streets Airports • Solid Waste • Animal Waste Land Surveying • Site Development Geographic Information Systems (GIS)







ENGINEERING EXCELLENCE
SINCE 1961

10 | JUNE 2020

ServiceLine



SDARWS TO HOST FREE VIRTUAL 1/2 DAY WORKSHOP

Join us June 16th as South Dakota Rural Water presents our first virtual ½ day workshop!

PRESENTATIONS WILL COVER:

Asset Planning • GIS • Finance
 AWIA 2013 – Risk Assessments & Emergency Response Plans
 • Drone Technology

REGISTER TODAY FOR THIS UNIQUE TRAINING OPPORTUNITY!

Contact hours will be awarded • Finance and Board Members are encouraged to attend

Registration and the full agenda are available at sdarws.com/virtual-workshop.html

FREE CLOTH MASKS FOR SOUTH DAKOTA WATER & WASTEWATER PERSONNEL

ATTENTION WATER & WASTEWATER SYSTEM PERSONNEL:

South Dakota Association of Rural Water Systems (SDARWS) and Water and Wastewater Agency Response Network (SDWARN) has worked with EPA and FEMA to secure a limited supply of cloth facemasks for water sector personnel. SDWARN is partnering with SDARWS to help distribute these cloth facemasks. Because supplies are limited, systems can request a maximum of two masks per utility personnel. Masks will be distributed based on need and prioritized in counties most impacted by COVID-19.

ABOUT THE CLOTH FACEMASKS:

- Single size (one size fits all)
- Fabric touching skin is 100% cotton
- The cloth masks are reusable and machine washable up to 15 times
- NOT for use with chemicals or in hazardous environments where N95 or other respirators are required

If you are in need of masks for utility personnel, please visit **sdarws.com/masks.html** to fill out the online request form, and we will get you on the list to receive these essential supplies.

You will be asked to provide basic information about you and your water system such as your PWSID or NPDES Permit number and the number of FTE at your system. This is to verify that you are a South Dakota water or wastewater agency.

SOME KEY POINTS OF THE PROGRAM ARE:

Cloth masks are being made available to all water and wastewater agency employees in South Dakota.

The cloth masks are for all public water and wastewater system employees; masks are not exclusive to field workers and operators.

Identify the number of cloth facemask requested – current limit of two cloth facemasks per water or wastewater agency employee.

Once approved, you will receive an email to confirm the number of cloth masks you will receive and confirmation of arrangements made for pick-up or delivery of the facemasks.

You do not need to be a member of SDWARN in order to receive masks, however, if you're not a member, we strongly encourage you to join. More information can be found on SDWARN's website by going to www.sdwarn.org.



- · Interior/Exterior Tank Painting

800-211-6432

www.electricpump.com

- · Interior/Exterior Sandblasting and Containment
- · Interior/Exterior Tank Inspections
- · Lead Abatement

- · Interior Tank Cleaning and Disinfection
- · Custom Tank Logos
- · Chemical Cleaning
- · Tank Mixing Systems
- · 24-Hour Emergency Services





CHAD EDWARDS **South Dakota Water Tower Expert** (605) 759-4957 I edwardsc@maguireiron.com

402-333-9660

www.mc2h2o.com

ELECTRIC PUMP An Electric Pump Company

12 | JUNE 2020

ServiceLine

115 Lipton Street

Suite B

Tea, SD 57064



ESSENTIAL WATER AND WASTEWATER WORKERS

THE SOUTH DAKOTA ASSOCIATION OF RURAL WATER SYSTEMS IS GREATLY APPRECIATIVE OF THE HARD WORK OUR ESSENTIAL WATER AND WASTEWATER WORKERS ARE DOING TO KEEP THE WATER FLOWING AND THE TOILETS FLUSHING. WE ARE HERE TO SUPPORT YOU EVERY STEP OF THE WAY.

COVID-19 UPDATE

SOUTH DAKOTA WATER AND WASTEWATER UTILITY SYSTEMS.

SDARWS is here for our members during these trying times with the onset of the COVID-19 pandemic. At this time our offices will be closed to the public (doors locked), but still functioning Monday – Friday 8:00 am – 4:30 pm (CDT) we will continue to receive phone calls at 605-556-7219 and to check and respond to emails. We will continue to monitor any changes of the COVID-19 pandemic and adhere to additional federal, state and local directives as they are issued and understood.

If you have any questions, concerns or need further information, please contact the SDARWS office 605-556-7219 or call directly; Kurt Pfeifle, Executive Director 605-204-0125 (cell).

We remind everyone that it is your responsibility to keep your family, neighbors and fellow South Dakotans safe by following all Federal, State and Local guidelines dealing with the COVID-19 pandemic, including the avoidance of group gatherings and the practice of social distancing.

The National Rural Water Association continues to monitor the Coronavirus (COVID-19) outbreak and recommends all water and wastewater utilities review the best and latest information on the following trusted websites: CDC: www.cdc.gov/coronavirus/2019-ncov/summary.html

OSHA: www.osha.gov/SLTC/covid-19/controlprevention. html#solidwaste

WHO: www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19

CISA: www.cisa.gov/insights

Incident Action Checklist for Pandemic Events: www.epa. gov/sites/production/files/2020-03/documents/pandemic_iac_final_032620_508_fillable.pdf

Incident Action Checklists for Water Utilities: www.epa. gov/waterutilityresponse/incident-action-checklists-water-utilities

NRWA Resources: nrwa.org/initiatives/covid-19/

In addition to the foregoing, NRWA has also made available a template for "Continuity of Operations Plan" (COOP) for Water Systems during an Influenza Pandemic. The template is broadly written but contains some good information for systems to study and utilize if it becomes necessary. You can find the COOP template here: www.nrwa.org/wp-content/uploads/2020/03/Influenza-Pandemic-Continuity-of-Operations-Plan-Template.pdf

Thank you and stay safe!

Kurt Pfeifle,

SDARWS Executive Director



Engineering water solutions for community growth.

Bartlett & West

Clean, safe and reliable water is a basic building block of a modern community.

Residents and industry depend on your system. You need proactive communications regarding system needs and innovative, comprehensive solutions. As a national leader with long-time relationships in water-focused services, Bartlett & West is your ally for success.

5900 S. Western Ave., Ste. 101 Sioux Falls, SD (888) 200-6464 www.bartlettwest.com

Get the Best Treatment



14 | JUNE 2020 ServiceLine

MEET OUR NEW WASTEWATER TECH DANNY AYERS

ello everyone. My name is Danny Ayers, and I am a new SDARWS Wastewater Technician for the east side of South Dakota. I have only been with SDARWS for a short time but have already met many wonderful people and come across a few very interesting situations.

I worked for the City of Winner in south-central South Dakota for thirty-one+ years and have been involved in many aspects of the water and wastewater industry. I have been involved in smoke testing, sewer camera operation and maintenance, GIS data gathering, poly pigging, leak detection and repair, system design, lift station design operation and maintenance, collection system design and maintenance, sewer main relining, jetting and vacuuming sewer mains, manhole rehabilitation, budgeting, and lagoon operation and maintenance.

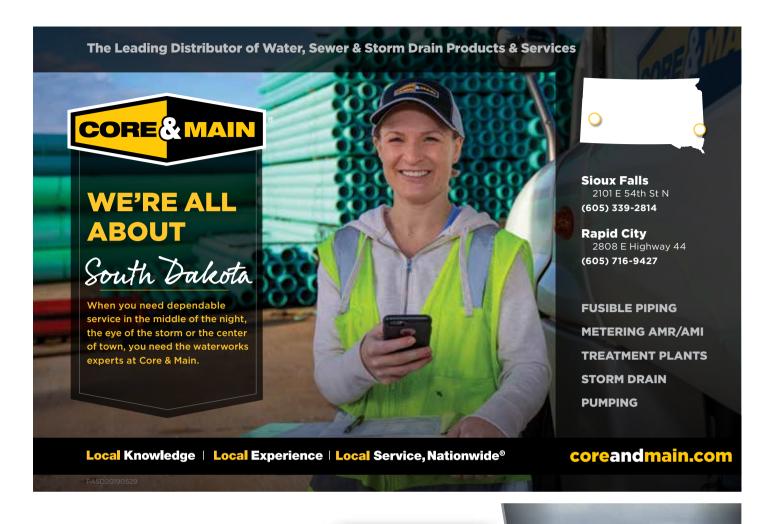
I have been married for 37 years to my wonderful wife Linda, and we have raised two great kids, Zach and Ryan, we are currently living in Winner but have plans to move to the east side of the state as soon as possible.

I am looking forward to meeting all of you and helping any way I can. If I have not made it to your town yet and you think I could help you in any way, give me a call, and I will do my best for you.





JUNE 2020 | 15





To succeed, you need a partner that makes your job easier. With Dakota Supply Group, you get more than just pipe and products:

Contact us today to learn more about how we can help you.



FARGO, ND ► [800] 342-4676 BISMARCK, ND ► [855] 3<u>37-9258</u>

SIOUX FALLS, SD ► [800] 660-5531

RAPID CITY, SD ► [800] 660-5538

BURNSVILLE, MN ► [800] 325-0514

www.dakotasupplygroup.com

16 | JUNE 2020

ServiceLine



JULY 21, 2020 ELMWOOD GOLF COURSE • SIOUX FALLS, SD

\$75/golfer • Includes 18 holes of golf, riding cart, lunch & prizes!

REGISTER ONLINE AT SDARWS.COM

or: tinyurl.com/SDARWSGOLF

Note: SDARWS is monitoring the COVID-19 pandemic. If circumstances require the cancellation of the Rural Water Open, all registrants will be notified, and all registrations and sponsorships will be fully refunded.



AWARDS LUNCHEON SPONSOR

\$2,000 (1 available)

Help feed the masses and take a shot at sponsoring the Rural Water Open Awards Luncheon. Sponsorship includes signage and recognition at the Awards Luncheon, and in our *ServiceLine* magazine.

BEVERAGE CART SPONSOR

\$1,500 (1 available)

Sponsor the beverage cart - includes two free drinks for every golfer (beer, soda, water, sports drink, malt beverage). Sponsorship includes logo on drink tickets, signage on beverage cart, and recognition during luncheon/awards and in our *ServiceLine* magazine.

BALL SPONSOR

\$750 (1 available)

A sleeve of your logoed golf balls will be handed out to every golfer in the tournament. Sponsorship also includes recognition during luncheon/awards and in *ServiceLine*.

DONUTS & COFFEE SPONSOR

\$500 (1 available)

Make everyone's morning with fresh Flyboy donuts and coffee. Sponsorship includes signage at the breakfast table which will be located near the outside entrance of the clubhouse, and recognition during awards luncheon and in *ServiceLine*.

19TH HOLE SPONSOR

\$500 (1 available)

Sponsorship of the 19th Hole Putt Challenge features a keg, as well as signage at the hole, and recognition during the awards luncheon and in *ServiceLine*.

WATERPAC HOLE KEG SPONSOR

\$500 (2 available)

A keg with your name on it will be chilled and ready to serve our thirsty golfers. Sponsorship also includes recognition during luncheon/awards and in our *ServiceLine* magazine.

GPS CART SPONSOR

\$500 (1 available)

Have your ad pop up on the golf carts when the players arrive at each hole. Sponsorship includes recognition during luncheon/awards and in our *ServiceLine* magazine.

GOLF CHALLENGE SPONSORSHIP

Prize Donation (27 available)

Sponsorship is \$100 or equivalent prize. Sponsorship includes signage at the challenge hole, and recognition during luncheon/awards.

TEE BOX SPONSORSHIP

Gold (\$750) Silver (\$500) Bronze (\$250)

All proceeds from Tee Box Sponsorships benefit the Rural Water Center and are TAX DEDUCTIBLE! Sponsorship includes signage at a tee box, and recognition in our ServiceLine magazine. (18 available)

18 | JUNE 2020

2020 RURAL WATER OPEN SPONSORSHIP CONTRACT

NOTE: SPONSORSHIPS ARE SOLD ON A FIRST-COME, FIRST-SERVED BASIS. TO CHECK ON AVAILABILITY, PLEASE CALL 605-556-7219.

COMPANY:		
CONTACT:		
ADDRESS:		
CITY:	STATE: ZIP:	
PHONE:		
EMAIL:		
AWARDS LUNCHEON SPONSOR \$2,000 (1 available)	GOLF CHALLENGE SPONSORSHIP	
BEVERAGE CART SPONSOR \$1,500 (1 available)	□ Prize: GPS CART SPONSOR □ \$500 (1 available)	
BALL SPONSOR □ \$750 (1 available)	WATERPAC HOLE KEG SPONSOR □ \$500 (Only one left!)	
DONUTS & COFFEE SPONSOR □ \$500 (1 available)	TEE BOX SPONSORSHIP □ Gold (\$750) □ Silver (\$500) □ Bronze (\$250)	
19TH HOLE SPONSOR \$500 (1 available)	For more information on sponsorships or the tournament, please contact Jeremiah at icorbin@sdarws.com_or_call 605-556-7219	

Note: SDARWS is monitoring the COVID-19 pandemic. If circumstances require the cancellation of the Rural Water Open, all registrants will be notified, and all registrations and sponsorships will be fully refunded.

MAIL FORM WITH PAYMENT TO:

South Dakota Association of Rural Water Systems, PO Box 287, Madison, SD 57042

FAX 605-556-1497 • SCAN AND EMAIL golf@sdarws.com

REGISTER ONLINE sdarws.com/golf-tournament.html





We help protect your personal information from getting into the wrong hands.

IDShield Plan Benefits:

- \$1 Million Protection Policy
- Unlimited Service Guarantee
- Identity, Credit, Social Media Monitoring, Plus Real Time Alerts
- Username and Password Combination Monitoring — ONLY AVAILABLE WITH IDSHIELD!
- Full-Service Identity Restoration
- Child Monitoring (Family Plan only)
- 24/7 Emergency Access

www.legalshield.com/info/sdrws



Identity Theft Services at Your Fingertips

With the IDShield Plus mobile app you can track your alerts, check your credit score and have on-the-go access 24/7!







Quality Water

to Rural America for over 60 Years



- Supply
- Treatment
- Storage
- Distribution

Wastewater

- Treatment
- Collection
- Lift Stations
- Sewer Rehab



Sioux Falls & Yankton, SD Rock Rapids, Sioux City & Ankeny, IA

800-446-2531

Trusted. Professional. Solutions.

dgr.com



20 | JUNE 2020

REPAIR VALVE RISERS WITHOUT A BACKHOE

Valve risers are a very important part of any water system giving access to the valves that are buried that no one sees. The valve risers are continuously being run over by cars, pickups, and even semis. Most of the time, they are trouble-free, with the exception of a cast-iron lid that is packed with fine dirt and small rocks and can fight you to get it open. But every once in a while one of the risers will get hit by something pretty big and breaks them. When this happens, you have to remove the dirt from around it to gain access to perform repairs. That is where SDARWS can come to help you out without the use of a backhoe or excavator.

The valve riser is made up of multiple sections depending on how deep it is buried. Usually, just the top section needs to be replaced, but every once in a while, the second section down may be damaged. To gain access to the section of the riser that needs replacing. In these cases, SDARWS uses a Hydro-Vac. A Hydro-Vac is a piece of equipment with a pressure washer and a large vacuum on it. You use the pressure washer to turn the soil into a slurry, and then use the vacuum portion to suck it up. The slurry is collected in a large tank and can be disposed of in any landfill or gravel pit, considering it is just dirt and water.

Once you have used the Hydro-Vac to clean all the soil from around the valve riser, you can then unscrew the sections of the valve risers that need replacing. Most of the time, if it is just the



Power washing the soil into a slurry around a valve riser.

top section that needs replacing, you will only need to go down about three feet to get the section free from the lower portions. The threads that screw the sections together are very open and loose and will typically come apart fairly easily. Once you



A valve riser that was set too high and hit by a snowplow.

have the old section out, you can now screw the new section in place and backfill it. Keep in mind that when you put the new top section in, you may want to screw it down a little farther than the previous one if it was sitting too high, and that is the reason it broke - possibly from being hit by the cutting edge on a snowplow.

Sometimes valve risers that need attention aren't broken. Sometimes they are set too low and need to be raised. The same process would apply to get to the threaded section by taking away all the dirt around the riser to the first section with the Hydro-Vac. Once you are in the first section, you can unscrew the top section if enough threads are available to raise it to the desired level you want. By raising it, you will prevent water and silt from flowing into the valve riser and filling the riser with dirt. If the riser is filled with dirt, you will have a hard time getting a

...continued on page 23

JUNE 2020 | 21



Treatment Resources' fifty years of combined experience in water treatment makes us uniquely qualified to meet your objectives. We represent the finest manufacturers in the industry and have worked with hundreds of municipalities and their consulting engineers to solve their water treatment problems. For more information visit us online or call us at (651) 702-2692.





RAPID VALLEY: continued from page 21...



Before picture of a riser that was too low.

valve wrench on the valve. Cleaning the valve riser is an easy task with the Hydro-Vac if you have valve risers that are filled with silt from runoff.

SDARWS has two Hydro-Vacs and is ready to assist with your valve riser repair and adjustment needs. Give us a call, and we can put you on the schedule to help out your water system.



Repairing the valve riser



MIKE MOELLER has worked for SDARWS since 2014. He previously worked at Dakota Pump and Control for five years, and served 30 years with the South Dakota National Guard. Mike also holds an Advanced Safety Certificate from the National Safety Council.





or visit nrwa.org!





"100 years and still climbing"





www.pttg.com

INSPECTIONS REPAIR Elevated Code Wet **Updates** Ground Dry Relocation ROV Paint Erection In-Service Insulation Dismantles Cleaning NEW TANKS - Rick DiZinno **EXISTING TANKS - Patrick Heltsley** (270) 826-9000 ext. 2601 (270) 826-9000 ext. 4601





24 | JUNE 2020 ServiceLine



"It's a good day to die." The line from the movie mentioned in the title does not fit in our everyday lives, but it may show up somewhere in your system unexpectedly. I don't mean that morbidly, or in any form of someone dying, but a part of your

Things tend to pile up, especially in the routine maintenance areas of a system. There is never enough time to get all of the things done that need to be done, and then the construction

season opens. Locates need to be done, and other complaints end up taking priority on the schedule. Valve exercising, hydrant repairs or maintenance, small leaks not worth fixing in the dead of winter, and other routine maintenance items take a back seat when it gets busy.

That's where we at the South Dakota Association of Rural Water Systems do some of our best work. If you need some valves exercised, a hydrant problem resolved, or help to locate a pesky leak or are seeing a high water loss, give one of our circuit riders or technical assistance specialists a call. We have several tools that we can use to assist in solving some issues that may have been on the back burner all winter. After working from home for a bit lately and if everyone can be safe, we would love to visit with you about

any maintenance or operational issues that you have been dreading. As always, stay safe.

system may decide to expire, and it usually happens on the worst day it could possibly happen.

As winter has passed and summer is upon us quicker than we may like to admit you may have noticed a few things in the system that are about to expire or need some attention. This could be a valve that has been giving you fits, meaning it will take a lot more effort to turn that part of the system off or back on – and that valve may not work at all at some point. Or there could be a hydrant that did not perform as expected when flushed this spring. Could be you have some water still standing where there should not be water standing at this time? Even new pipes or parts do not last forever.



BILL THORSON joined the SDARWS staff in March of 2018 as a Wastewater Tech.
Bill transitioned to Trainer/Technical Assistance
Specialist with SDARWS in October of 2019. Bill previously was employed with the City of Canton as Public Works Director for nine years and water/wastewater operations specialist for 19 years. Bill holds Class II certifications in Water Treatment, Water Distribution, Wastewater Treatment, and Wastewater Collection. Bill is NASSCO certified in pipeline and manhole inspections. Bill is also an SDWWA board member.

Don't Get Shocked by a Lack of Electrical Safety Knowledge

The amount of content on electrical safety is wide-ranging. This article will focus on just a few different aspects of electrical safety, starting with electrical safety in the workplace.

There are many possible dangers when it comes to using and being around electricity in the workplace. The lack of electrical safety can be a significant cause of injury and death in the workplace. Nearly every job exposes employees to electrical hazards to some degree, so it is imperative to make sure all employees are aware of the dangers.

To get started, we need to separate workers into two distinct groups: qualified persons and unqualified persons. When it comes to electricity, qualified persons have received training in and have demonstrated skills and knowledge in the construction and operation of electric equipment, installations, and the hazards involved. Everyone else would be considered unqualified. Furthermore, a person may be qualified to install, maintain, or repair certain types of electrical equipment but be unqualified on other equipment. Since electrical equipment is wide-ranging specific qualification questions are best answered by referencing NFPA (National Fire Protection Association) 70E, which is the standard for electrical safety in the workplace.

Unqualified workers still need to know proper safety precautions when it comes to safety. Some of the items every worker should know are:

- What the electrical hazards are where they work.
- Maintenance, Repairs and Installations should only be performed by qualified workers.
- Lock and tag out equipment before performing any maintenance or repair.
- Protections needed when working near electricity.

- What to do in an electrical emergency.
- If a piece of electrical equipment has signs of damage (sparks, smelling, or seeing smoke) or if you get shocked by the equipment you should shut it down, lock/tag it out, and report it to a supervisor.
- Be aware of any arc flash hazards from electrical panels and the setback boundaries that pertain to them.

In addition to those major items, there are also safety tips that every worker should know. These tips are also useful when you are at home.

Make sure wiring and insulation are in good condition, with no major cuts or exposed wiring.



- Do not touch electrical items with wet hands or while standing in a wet area.
- If you are using an electrical item near wet conditions, make sure you plug it into a properly functioning GFCI (Ground Fault Circuit Interrupter) outlet and that the item is rated for wet use.
- When you are near an electrical energy source, only use insulated non-conductive tools.
- In the presence of flammable materials, make sure to have explosion-proof tools and do not let tools or cords get too hot.
- Overloading outlets, motors, and circuits can cause fires. Make sure to use proper tool, cord, and outlet ratings to avoid this.
- Keep electrical tools and equipment clean. Do not let dirt, grease or dust build up on these items.
- Do not have metal touch electrified items.
- When working near power lines, do not use metal ladders or any other metal items that can come into contact with them.

Also, when using extension cords:

- Keep cord insulation free from damage. Don't use staples or nails to keep extension cords. Do not set heavy objects on the cord or have cords contact sharp objects.
- Make sure you have a good tight connection when plugging the cord into an outlet.
- Make sure the extension cord has a high enough wattage rating for the tool/piece of equipment. You need the total wattage of everything plugged into that cord. To get wattage multiply amps by volts (amps x volts = watts).
- Do not use indoor cords outside. Store outdoor cords indoors when not in use. Also, unplug cords when not in use.





- Plugging one cord into another to make it longer can cause fires. Use a cord of the correct length instead.
- Make sure electrical equipment is off before you plug in or unplug the electrical cord to an outlet. Pull cords out by the plug, not the cord when unplugging.
- Do not use cords to raise or lower equipment.

As mentioned before the, amount of resources on electrical safety is vast, so make sure you know you are safe before working on, with or near electrical equipment or tools.



STEVE ATTEMA Steve Attema joined the SDARWS in May 2014 as a Training Specialist. He previously worked for 6 years at Midwest Railcar Repair, Inc. managing their wastewater treatment facility, and 3 years at Bolton & Menk, Inc. as an Environmental Engineer. Steve has a Bachelor of Science degree in Civil and Environmental Engineering (CEE) from South Dakota State University. He also holds a Class III Wastewater Treatment Certification, is an FAA certified Remote Pilot SUAS and holds Utility Management Certification with the NRWA. As a Safety Trainer, Steve holds an Advanced Safety Certificate from the National Safety Council, completion of OSHA's 30hour General Industry Training Course and certified with the Board of Certified Safety Professionals as an Associate Safety Professional.

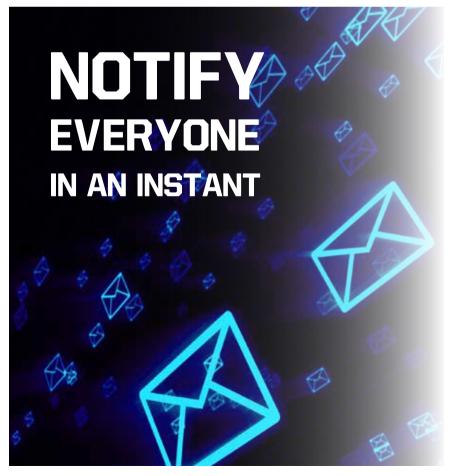
JUNE 2020 | 27





Advanced Engineering and Environmental Services, Inc. South Dakota Offices: Rapid City, Sioux Falls, Spearfish

www.ae2s.com





Immediate Response
Information System gives
organizations the ability to
broadcast information via voice
and text to thousands of people
simultaneously with its
easy-to-use mass
notification service.

To get started with IRIS, go to www.useiris.com



28 | JUNE 2020 Service Line



1. HOW MANY GALLONS OF WATER WILL A 10 MILE SECTION OF 48 INCH PIPE HOLD?

- a. 3,050,000 gallons
- b. 4,960,000 gallons
- c. 5,732,000 gallons
- d. 11, 274,000 gallons

2. IF THE WATER IS FLOWING AT A VELOCITY OF 2 FEET PER SECOND IN THE ABOVE PIPE, WHAT WOULD THE FLOW RATE BE IN GALLONS PER MINUTE (GPM)

- a. 3,050,000 gpm
- b. 4,960,000 gpm
- c. 5,732,000 gpm
- d. 11,274 gpm

3. IF YOU WANTED TO DISINFECT THE ABOVE PIPE USING 65% CALCIUM HYPOCHLORITE TO A DOSAGE OF 50 MG/L, HOW MANY POUNDS WOULD IT TAKE?

- a. 550 lbs
- b. 7,233 lbs
- c. 9.467 lbs
- d. 11, 274 lbs
- 4. TO PUMP WATER AT THE RATE (GPM)
 OF PROBLEM #2, WHAT HORSEPOWER
 WOULD BE REQUIRED OF A PUMP INTO
 A WATER TOWER IF THE ELEVATION OF
 THE OVERFLOW IS 280 FEET ABOVE THE
 CENTERLINE OF THE PUMP? (WE WILL
 ASSUME THE PUMP AND MOTOR ARE 100%
 EFFICIENT)
- a. 347 Hp
- b. 560 Hp
- c. 800 Hp
- d. 11,274 Hp
- 5. IF POWER COSTS \$0.035/KWH, HOW MUCH MONEY WOULD IT COST TO RUN THE PUMP IN PROBLEM #4, 17 HOURS PER DAY FOR 30 DAYS?

- a. \$3,745
- b. \$9.922
- c. \$10,656
- d. \$11,274

6. WHICH OF THE FOLLOWING TEST COULD AN OPERATOR USE TO MAKE AN IMMEDIATE PROCESS CHANGE?

- a. BOD
- b. COD
- c. F:M
- d. SVI

7. THE COLOR OF THE BIOFILM ON A RBC WOULD NORMALLY APPEAR AS?

- a. Red
- b. White
- c. Green
- d. Brown

8. WHICH OF THE FOLLOWING CHEMICALS HAS THE GREATEST ABILITY TO NEUTRALIZE ACIDS

- a. Hydroxide
- b. Phosphate
- c. Potassium
- d. Hydrogen

9. WHICH IS THE BEST VELOCITY TO ACHIEVE GRIT REMOVAL IN A GRIT CHANNEL?

- a. .5 ft/sec
- b. 1 ft/sec
- c. 2 ft/sec
- d. 5 ft/sec

10. THE MOST COMMON FLOW MEASURING DEVICE FOR WASTEWATER IS?

ServiceLine

- a. Magnetic Meter
- b. Nutating Disc Meter
- c. Parshall Flume
- d. Turbine Meter

J' B; Z' D; 2' B; 4' C; 2' C; 6. D; 7. D; 8. A; 9. B; 10. C



Thompson Knows CONTROLS &

AUTOMATION





SCADA/HMI Systems Development

Maintenance Service
Hardware/Programming







Powered by WATERWORTH"

The National Rural Water Association is committed to providing training, expertise and resources for small and rural utilities through its State Rural Water Associations (SRWA).

The *Powered by Waterworth* program enables SRWAs to further deliver on this mission and support their utility system members.

Waterworth is an easy-to-use web-based platform that enables you to **optimize water rates and save for infrastructure upgrades**, so that you can achieve **financially sustainable water and wastewater systems**.

Utility system members will receive significantly discounted access to a Waterworth annual subscription, at \$1 per service population up to \$3495.

SRWA staff are certified by Waterworth to provide financial management training to utility system members to help them achieve their financial, policy and community goals.

	Consulting Rate Study	WATERWORTH"
Collaboration & Learning	Little - none. You are reliant on third party knowledge.	High. Learn best practices and become empowered to financially manage your system.
Technical Support	Little - none, depending on access given to consultant's models.	High. Available whenever, wherever you need it.
Model New Scenarios	Limited	Unlimited
Accuracy & Currency of Informaiton	Low. Static report may become increasingly outdated as assumptions change.	High. Information is reliable and up-to-date.

30 | JUNE 2020 ServiceLine

How Does It Work?

- Contact your State Rural Water Association (SRWA) to get started
- Work with SRWA staff to develop a baseline financial model
- Keep your model up-to-date as information changes
- Build scenarios to evaluate funding alternatives, rate changes, or timing for capital expenditure
- Have better conversations with boards, councils, and State-level loan and grant issuers
- Lean on high-quality, professional support and training from SRWA staff

Waterworth is an alternative to the traditional rate study. Adopt a practice of annual rates management and maintaining an accurate, up-to-date financial model.

SRWA staff are Waterworth-certified to provide utility system members with financial management training and implement best practices in water rates management.

Long-Term Financial Model

Understand where operating costs, capital costs, revenues and reserves will trend to develop a long-term view of your cash position. Our goal: get you on track to achieving full cost recovery.

Cost of Service Analysis

Review historical demand patterns and work towards a true cost-ofservice model for each customer category. Explore cost reallocation scenarios to see how you can make rates more equitable.

Rate Schedule

Build your current rate structure in Waterworth. Easily model new scenarios to see what changes to rates will mean for revenues and affordability for residents.

Asset Replacement Schedule

Produce a long-term asset replacement schedule and benchmark how much to invest annually in capital renewal. Discover how to sustainably finance your system and avoid water emergencies.

When Do You Use Waterworth?

You can choose to work with Waterworth as much or as little as you like. Typically, users work with Waterworth at **the start of the annual budgeting process**, to determine their cash requirements. Then again during **the budget approval phase**, Waterworth's graphics are used to improve conversations with elected officials and other stakeholders.

The scope of work is up to you. Your SRWA staff will meet with you annually to help set goals and create a work plan.

www.sdarws.com 605-556-7219 www.waterworth.net





www.cobank.com/h2oloan

844-846-3135

Proud Member of the Farm Credit System



NEED POWER WE ARE THERE FOR YOU.



877.365.8114 BUTLERMACHINERY.COM

Butler



PHOTOS FROM THE FIELD



Circuit Rider Jeff Fossum GPS mapping in Viborg.



Bill Thorson takes selfies to new heights! Here he is using the valve exerciser to assist with an emergency valve repair at the lagoons in Viborg.



Jeremiah Corbin and SDWARN Chairman Brad Lawrence unloading masks at the SDARWS office.



SDARWS Wastewater Tech Danny Ayers assists with poly pigging in Seneca.



Nick Jackson snaps a selfie while working remotely.



Someone at SDARWS decided to prank the office on April Fools Day with this "smoking" toilet!

To see more pictures of SDARWS in action, follow us on Facebook at www.facebook.com/SDRuralWater



FROM THE EXECUTIVE DIRECTOR

KURT PFEIFLE, EXECUTIVE DIRECTOR

"Attitudes are contagious. Do you want people around you to catch yours?" – Bob Moawad

You have likely heard it, ad nauseam, that we're in a "new normal"—that following the Coronavirus pandemic, things will never be the same! Perhaps. But maybe things shouldn't go back to the way they were; maybe the new normal can be a better reality. Anecdotal evidence suggests that with people staying home all over the world, our water and air quality is improving. From jellyfish and dolphins returning to the Venice canals to scenic mountain views that are being seen again in our smoggiest cities, it is amazing how resilient our environment is and how fast it can recover if we let it!

From a local perspective, some change has been pleasant, and dare I say, needed. I confess that I now have a new appreciation for being around people. It can be easy to take family and friends for granted when you do not have to limit the time and opportunities to get together and socialize. Facetiming, Zooming, Team meetings, and conferencing phone calls are not a great substitute for in-person social interaction and can leave one wanting more. Notwithstanding the latter, I have learned that I can work from home and be productive. It's not ideal, but it's doable. I have found that my coworkers can work from home, too, and are able to stay very busy and productive, and their work adds value to the organization. I'll grant you that in our line of business of operating water and wastewater

utilities, working from home is not always conducive to getting the job done. There are plenty of times when being on-site is the ONLY way some work can get done. And in our world of operating "critical infrastructure," we must always pay attention and respond appropriately to the work and needs that our business demands.

Every situation and business is different. Some of us managers and supervisors may consider taking a step back and contemplate that work may be accomplished without the assertion that it can only be done from one venue, or that work can be done correctly without intense scrutiny from supervisors. Maybe our new normal is to relax a little, trust that our coworkers and subordinates have got this and are honorable and responsible people and left to their own devices, the job will get done. The company will be better for it. You may find that employees are happier and that your role as a supervisor just got a lot easier and possibly a whole lot less frustrating.

The new normal? Maybe it's wishful thinking from someone who has spent more than 30 years in the industry and is longing to see a reduction in the day-to-day anxiety we experience in our daily toils. Yeah, it may be a pipe dream, but hey, what do you have to lose if you give the new normal a chance to become a better reality!?



SDARWS staff have been working from home since March 16. Weekly staff meetings have been taking place via Zoom.

34 | JUNE 2020 ServiceLine



ATTENTION ALL SOUTH DAKOTA WATER & WASTEWATER UTILITIES

The current state of response to the COVID-19 virus means that water and wastewater systems must commit themselves as first responders to the protection of the public's health. The undisrupted continuation of water and wastewater service within all communities and regional providers is vital.

There may be systems, that due to an outbreak of COVID-19 require operational assistance. Accordingly, South Dakota Association of Rural Water Systems (SDARWS) and South Dakota Water/Wastewater Agency Response Network (SDWARN) is compiling a pool (list of volunteers) of certified water and wastewater operators who might be available to provide emergency on-site assistance to other systems.

This assistance could require the responder to relocate to the requesting system for up to 14 days. Water/ Wastewater systems and the responding operator should be prepared to keep detailed records of their response for reimbursement either through the requesting system or other available funding.

SDWARN is administered through the South Dakota Association of Rural Water Systems (SDARWS). Communications regarding this matter should therefore be through the SDARWS office. Your system need not be a member of SDWARN nor SDARWS to respond to this message. However, if activated, the system making the request and the systems responding to the request would need to become members of SDWARN as their mutual aid agreement would become the governing documents.

If an operator is available for this effort their name, certifications and certification levels along with contact information should be sent by email to Greg Gross at ggross@sdarws.com. There is no requirement that you respond if you reply to this request.

Thank you for your attention and assistance!





JULY 21, 2020 ELMWOOD GOLF COURSE • SIOUX FALLS, SD

\$75/golfer • Includes 18 holes of golf, riding cart, luncheon & prizes!

REGISTER ONLINE AT SDARWS.COM

or: tinyurl.com/SDARWSGOLF