

# ServiceLine

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



**SDARWS Unveils  
A New Website**  
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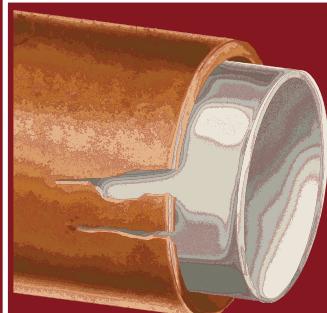


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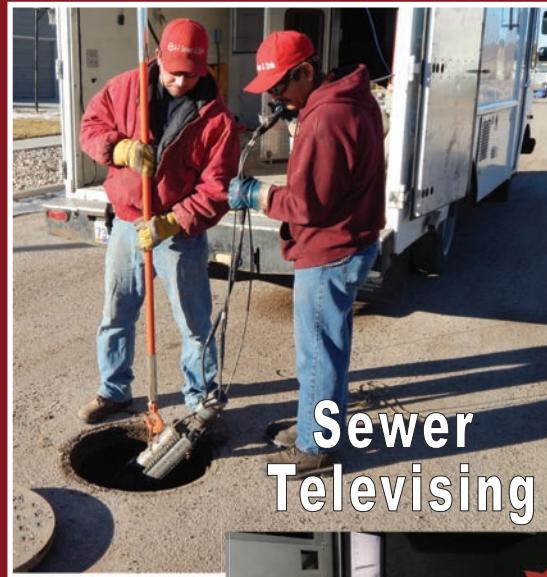
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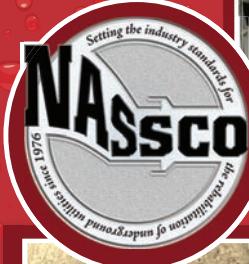


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# In This Issue

# President's Message

Ron Gillen, SDARWS President



**S**DARWS is pleased to announce the roll-out of a brand-new and improved website – [sdarws.com](http://sdarws.com). With a new look also comes improved functionality and ease of use. Now you can easily contact information for SDARWS staff and board members. There is an interactive map where you can find contact information for rural water systems in South Dakota. Check out the statewide job openings in the water and wastewater industry – or browse the surplus equipment for sale by various utilities. The website is a great way to keep up on everything SDARWS is up to – including our legislative activities, and major events such as the ATC, Leadership Seminar, Golf Tournament, and the West River EXPO.

With the new website also comes our new class registration portal at: [go.activecalendar.com/sdarws](http://go.activecalendar.com/sdarws). We have made finding and registering for training classes even easier. Now you can search for upcoming classes based on dates, locations and times; register multiple individuals at once; share upcoming classes through social media; add classes to your Outlook, iCal or Google Calendar – and set up reminders; download class agendas, and more! It is very easy to use – and if you choose, you can set up a profile which will keep track of all your past and future registrations. The SDARWS Online Training Calendar is also available at [sdarws.com](http://sdarws.com).

While the 41st Annual Technical Conference is still a few months away, the staff at South Dakota Rural Water are already busy behind the scenes gearing up for the event which kicks off Tuesday, January 12th at the Best Western Ramkota in Pierre.

Online registration will be available soon – so keep checking [sdarws.com](http://sdarws.com) for information, as well as agendas, hotel information, and news regarding the upcoming conference. For those with smartphones – once you are registered online you will have access to our mobile app where you can manage your event registration, access event information on-the-go, and improve networking opportunities. The early bird registration deadline for this year's conference is December 15, 2015.

For our exhibitors, we will be offering two types of booth registrations: Full Conference Hallway (Tuesday and Wednesday) for \$450, and Wednesday Night at our Exhibit Hall for \$350, just like we did last year. Booth spaces are limited – so make sure to register soon to reserve your space! Make sure to reserve your booth space before December 15, 2015 to be eligible for the Early Bird pricing; exhibit booth prices will go up an extra \$50 after that date.

This year's awards brunch will feature a public judging of the top three finalists in the SD Rural Water Taste Test. The winner chosen at this taste test will go on to represent South Dakota in the National Rural Water Taste Test held at the Rural Water Rally in Washington, DC in February. If your water system is interested in participating in the taste test, please make sure that they bring a quart-sized glass jar filled with water from your water system to the Registration Desk by 2pm on Tuesday, January 12th.

Exhibitors can again look forward to participating in various advertising sponsorships at this year's conference. Make sure we have your email – sponsorship opportunities will be emailed out in September.

Are you getting all of the information we are sending out? If you think you are missing out, please email [info@sdarws.com](mailto:info@sdarws.com) to make sure you are on all of our mailing lists. 

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*Cover Photo: Sylvan Lake - Custer State Park, Black Hills, South Dakota*

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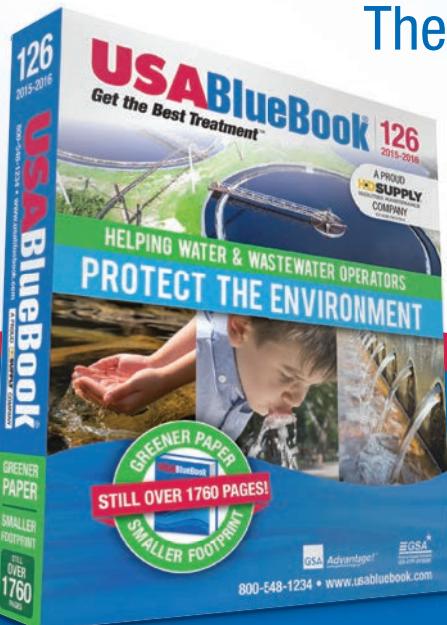
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# Events Calendar

## SEPTEMBER

### 29 – Hydrant & Flushing Workshop Rapid Valley SD/WS – Rapid City

This workshop will provide attendees knowledge on operation and maintenance of fire hydrants as well as flushing and disinfection practices. The workshop runs from 8:30am - 4:00pm MT.

### 30 – Hydrant & Flushing Workshop Oacoma Community Center

This workshop will provide attendees knowledge on operation and maintenance of fire hydrants as well as flushing and disinfection practices. The workshop runs from 8:30am - 4:00pm CT.

## OCTOBER

### 1 – Hydrant & Flushing Workshop WEB Water Shop – Aberdeen

This workshop will provide attendees knowledge on operation and maintenance of fire hydrants as well as flushing and disinfection practices. The workshop runs from 8:30am - 4:00pm CT.

### 20-22 – Wastewater Collection/Water Distribution Rapid City Ramkota

Day 1 will be Wastewater Collection, Day 2 Water Distribution, and Day 3 will cover topics related to both. Days 1&2: 8:00am - 4:00pm; Days 3: 8:00am - 11:30am MT.

## NOVEMBER

### 17-19 – Basic Water Treatment\* Sioux Falls Water Purification Plant

Topics covered include: South Dakota Drinking Water Regulations, disinfection, fluoridation, groundwater and wells, pumping, hardness, cross connections, pH, filtration, turbidity and mathematics. Days 1&2: 8:00am - 4:00pm; Days 3: 8:00am - 11:30am CT

### 18-19 – Leadership Seminar Pierre Ramkota

This seminar is geared towards Rural Water System Directors and Board Members and includes informational sessions on water rates, asset management, sustainability, financing, and director and manager panels. The cost to attend Leadership is \$125, and includes a meal at the President's Reception on the evening of November 18th. See page 6 for more information.

## DECEMBER

### 1 – Sustainable Management of Rural & Small Systems Rapid City Ramkota

This workshop will help utilities address a full range of challenges and improve the management of their operations and infrastructure. Class runs from 8:30am - 4:00pm MT.

### 8-10 – Basic Wastewater Treatment\* Sioux Falls Water Reclamation Facility

Topics covered include: natural biological processes in lagoons, water level controls, summaries of troubleshooting procedures, control of vegetation and odors, correction for low dissolved oxygen, primary treatment, trickling filters and RBCs. Days 1&2: 8:00am - 4:00pm; Days 3: 8:00am - 11:30am CT.

## JANUARY

### 12-14 – Annual Technical Conference Pierre Ramkota

Topics covered include: South Dakota Drinking Water Regulations, disinfection, fluoridation, groundwater and wells, pumping, hardness, cross connections, pH, filtration, turbidity and mathematics. Days 1&2: 8:00am - 4:00pm; Days 3: 8:00am - 11:30am MT.

### 26-28 – Basic Water Treatment\* Spearfish Holiday Inn

Topics covered include: South Dakota Drinking Water Regulations, disinfection, fluoridation, groundwater and wells, pumping, hardness, cross connections, pH, filtration, turbidity and mathematics. Days 1&2: 8:00am - 4:00pm; Days 3: 8:00am - 11:30am MT.

Save time...  
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Visit [www.sdarws.com](http://www.sdarws.com)  
or go directly to:  
[go.activecalendar.com/sdarws](http://go.activecalendar.com/sdarws)

\*Denotes Exam. Visit [denr.sd.gov/des/dw/exam.aspx](http://denr.sd.gov/des/dw/exam.aspx) to register for the exam.

Course agendas, maps and registration are all available online at [www.sdarws.com](http://www.sdarws.com). All classes are free unless otherwise noted. For more info on these and other events, visit [www.sdarws.com](http://www.sdarws.com) or call 605-556-7219.



SOUTH DAKOTA RURAL WATER

# LEADERSHIP SEMINAR

**A**ssociation staff are busy getting ready for our Annual Leadership Seminar which will be held at the Best Western Ramkota Hotel in Pierre November 19-20th. This seminar is geared towards Rural Water System Directors and Board Members and includes informational sessions on water rates, asset management, sustainability, financing, and

director and manager panels. The cost to attend Leadership is \$125, and includes a meal at the President's Reception on the evening of November 18th. Registration for this event is available on our website at [www.sdarws.com](http://www.sdarws.com), or by calling the SDARWS office at 605-556-7219. The tentative agenda is below:

## Wednesday – November 18, 2015

- 1:00 Welcome** – Ron Gillen, President (SDARWS)
- Flag Presentation** – Nick Jackson (SDARWS)
- National Anthem and Pledge of Allegiance**
- 1:15 Manager Panel Discussion: Technology and the Board Room**
  - Steve Harper (WEB)
  - Kurt Pfeifle (Mid-Dakota)
  - Jake Fitzgerald (WRLJ)
- 2:00 Sustainable Water Systems**
  - Dennis N. Davis (SDARWS)
  - Dave Meyerink (Randall)
  - Glen Gilbertson (Clay)
  - Jack Tomac (Rapid Valley)
  - Lloyd Rave (MCWC)
  - Ron Gillen (Aurora-Brule)
- 3:15 Break**
- 3:30 Rouge Board Members and Board Do's and Don'ts**
  - Margo Northrup (Riter, Rogers, Wattier, & Northrup, LLP)
- 5:30 President's Reception**
- 6:00 Dinner w/ Guest Speaker** – Lucas Lentsch, South Dakota Secretary of Agriculture

## HOTEL ROOM BLOCK AVAILABLE AT:

### Best Western Ramkota Hotel

Pierre South Dakota  
920 West Sioux Street  
Pierre, South Dakota 57501  
605.224.6877

### NEARBY HOTELS

Clubhouse – 605.494.2582  
Days Inn – 605.224.0411  
Governor's Inn – 605.224.4200

## Thursday – November 19, 2015

- 8:00 Water Rates and Asset Management**
  - Delvin DeBoer (AE<sub>2</sub>S)
- 9:00 Break**
- 9:15 Financial Reports Explained**
  - Dan Harrington (Harrington & Assoc.)
- 10:00 Break**
- 10:30 Board Panel:**
  - Choosing AMR**
    - Dan Carlson (Big Sioux)
  - Addressing Aging Infrastructure**
    - Dale Thompson (Kingbrook)
  - Serving Large Users**
    - Doug Feten (Brookings-Deuel)
  - Board's role in recruiting and retaining good employees**
    - Mike Neuhardt (WEB)
- 11:30 Rural Water Financing**
  - Mike Perkovich, Water and Waste Funding Program Administrator (DENR)
  - Pat Hemen, Community Program Specialist (Rural Development)
- 12:00 Closing Comments** – Ron Gillen, President (SDARWS)



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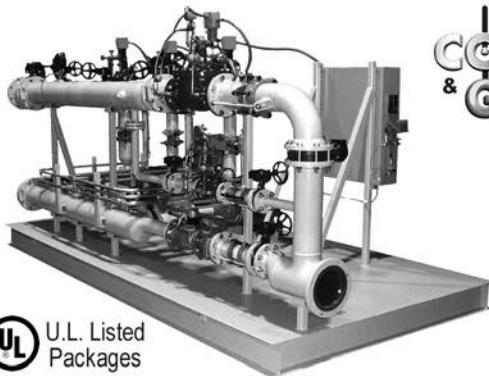
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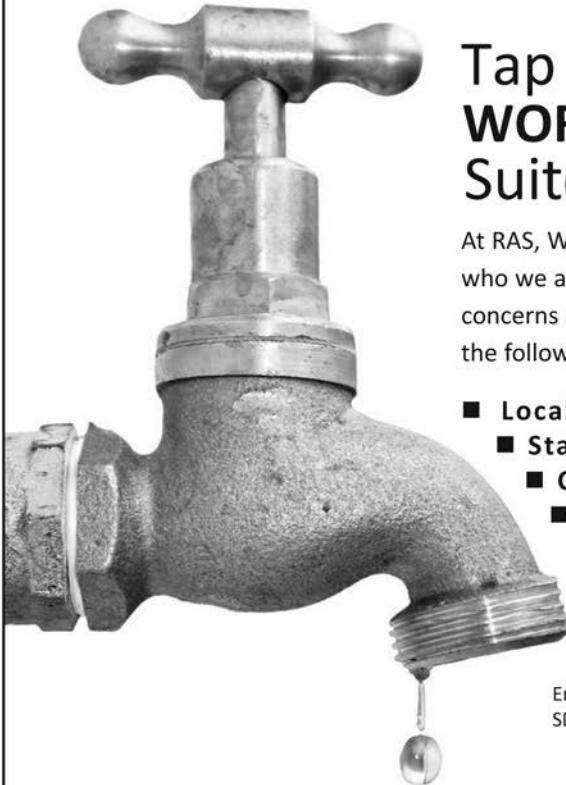
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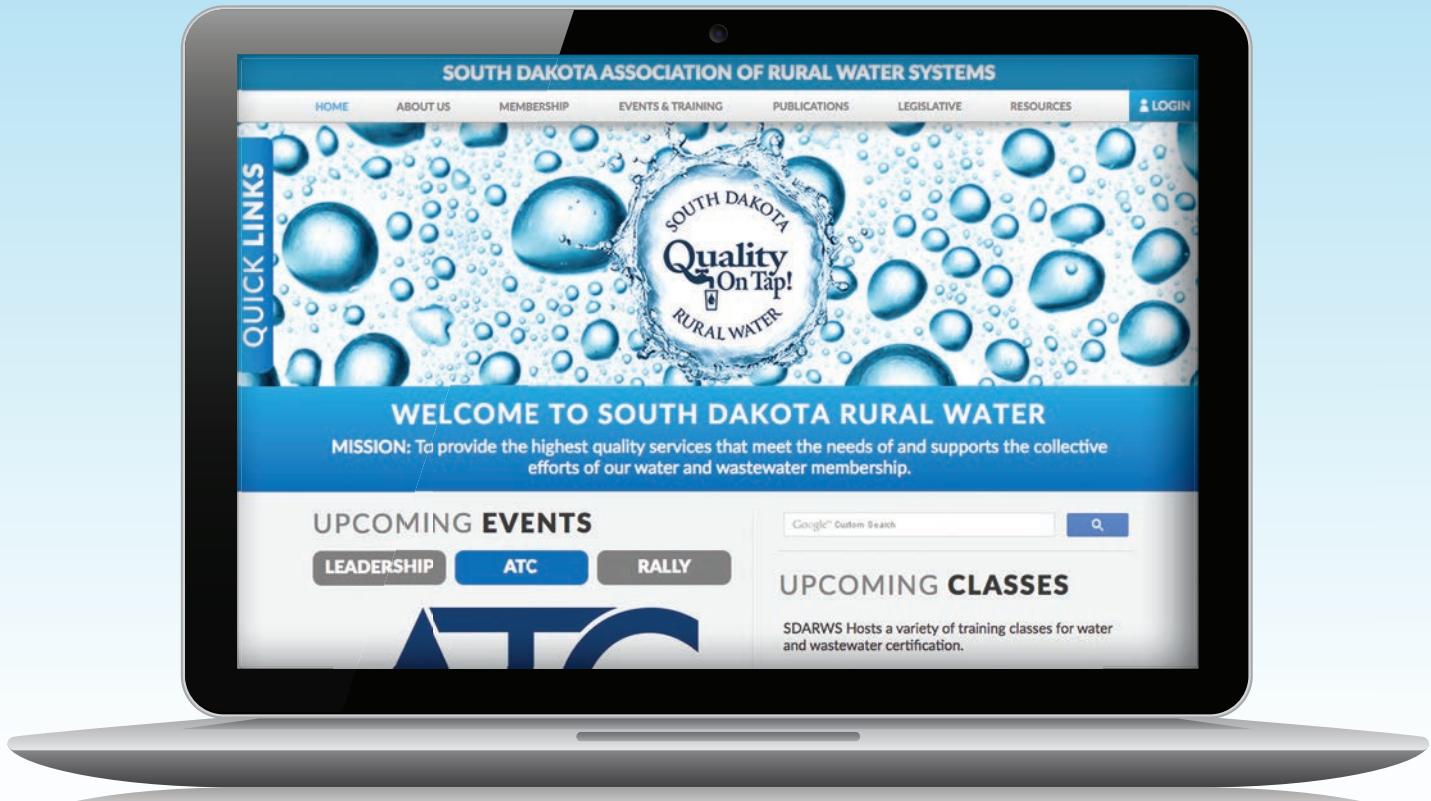
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# SDARWS HAS A NEW WEBSITE!

The South Dakota Association of Rural Water Systems is excited to announce that after months of development and design, we have a brand new website! Our main goals for the new sdarws.com were to make it faster, easier to navigate, and easier for us to update – so that we can share our news and events with you as soon as possible. Most of all, we wanted to help you, our members, get to know us better and make life easier for you. In addition to the updated design and layout, we have also increased functionality to make visiting the site a more friendly experience. By browsing the site, we think you'll get a pretty good idea of who we are, what we do and more importantly see the benefit of being a member of South Dakota Rural Water.

## Website Highlights

- Find up-to-date contact information for SDARWS Board Members and Staff
- Use the interactive Rural Water System map to find contact information for each system
- Keep up to date on major SDARWS events such as the ATC and Golf Tournament
- Register for upcoming training classes
- Read our publications online
- Find and place job openings
- Locate information regarding SD Rural Water

- Stay up to date with SDARWS's legislative activities
- Find resources to help with Sustainable Management
- Read up on studies produced by the Regional Water System Research Consortium

## Improved Class Registration

Along with this new website comes a new way to register for our classes. Registration for all upcoming trainings is available at: [go.activecalendar.com/sdarws](http://go.activecalendar.com/sdarws) – and through direct links on sdarws.com. Online registration is fast and easy!

## This improved registration will allow you to:

- Search for upcoming classes based on dates, locations, and times
- Register multiple individuals at once
- Share classes with others through email or social media
- Add classes to your Outlook, Apple or Google Calendar - and set up reminders
- Download class agendas
- Keep track of every class you have attended
- and more!

To learn more about class registration, see page 10.

We hope these changes excite you as much as they do us here at South Dakota Rural Water! 

# SDARWS CLASS REGISTRATION IS AS EASY AS 1-2-3!

## FIND A TRAINING CLASS

### 1. VISIT THE SITE

go.activecalendar.com/sdarws

### 2. VIEW UPCOMING CLASSES

Pick the view that works for you:  
summary view,  
calendar view, list  
view OR search for  
a class by clicking  
on the SEARCH icon

SOUTH DAKOTA RURAL WATER TRAINING & EVENTS CALENDAR

Click here to search for classes based on keywords, locations or dates

Choose how many classes to see

VIEW TYPE: View classes as a summary, calendar, or list (shown)

SEARCH

AUGUST 27, 2015 - NOVEMBER 25, 2015

Tuesday, September 1, 2015

Intermediate Water Treatment - Brookings Click on the class title for details and registration info

email a class to a friend

Tuesday, September 29, 2015

Hydrant & Flushing Workshop - Rapid City tweet class to your Twitter followers

Wednesday, September 30, 2015

Hydrant & Flushing Workshop - Oacoma share a class with your Facebook friends

SHARE IT

f g+

SUBSCRIBE

Subscribe and be the first to know when new classes are available

REGISTER

enter how many people you are registering and then click REGISTER

Name: Intermediate Water Treatment - Brookings

Description: Topics covered include: wastewater lab testing & microbiology, activated sludge, trickling filters, sludge handling; anaerobic digestion; aerobic digestion, sludge land application, sedimentation, stabilization ponds, disinfection, DMR's Surface Water Discharge Permits and advanced wastewater treatment math. Day 1 & 2- 8:00 a.m. to 4:30 p.m.; Day 3- 8:00 a.m. to 11:30 a.m.

Quantity:  Update

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Keywords: water intermediate water treatment certification Brookings

similar classes shown here

ADDITIONAL INFO

Attachments: Intermediate Water Treatment Agenda

Agendas can be found here

## REGISTER FOR A CLASS

### 3. REGISTER

Under the REGISTER section - enter the number of registrants in the QUANTITY box, click REGISTER, fill out the form, and submit. **It's that simple!**

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# MARK YOUR CALENDARS!



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# SDARWS MEMBERSHIP CORNER

## ARTICLE SUBMISSIONS

Does your company have information to share that would be of value to our readership? If so, we would welcome your article submission for ServiceLine magazine.

To send us an article, please email [jbame@sdarws.com](mailto:jbame@sdarws.com).

NOTE: SDARWS reserves the right to refuse any and all article requests.

## CITY OF DELMONT SEEKING DONATION OF WATER METER

The City of Delmont, SD lost their brand new fire hall in the tornado that hit on May 10, 2015. While they are in the process of rebuilding, they are in need of a donation of a 3-inch 150 lb. flanged water meter for the fire department. If you can help them out, please call Leo at 605-481-5464.

## JOB CORNER

The following job openings are posted on [sdarws.com](http://sdarws.com)

**WASTEWATER OPERATOR**  
City of Freeman

**ASSISTANT PUBLIC WORKS DIRECTOR/  
GENERAL MAINTENANCE**  
City of Eureka

**WATER TREATMENT OPERATOR/  
DISTRIBUTION SYSTEM OPERATOR**  
B-Y Water

**CLIENT/PROJECT MANAGER**  
AE2S

## WE LOVE GETTING MAIL!

**Please send us your letters of support!**

The hard work of dedicated SDARWS employees helps South Dakota's rural water and wastewater systems to have safe, reliable and quality water. SDARWS asks for your letters of appreciation in return for our on-site assistance. These letters are used to help obtain funding to continue these programs.

**Please submit letters via email to:** [info@sdarws.com](mailto:info@sdarws.com);

**or by mail to:**

South Dakota Rural Water  
PO Box 287  
Madison, SD 57042

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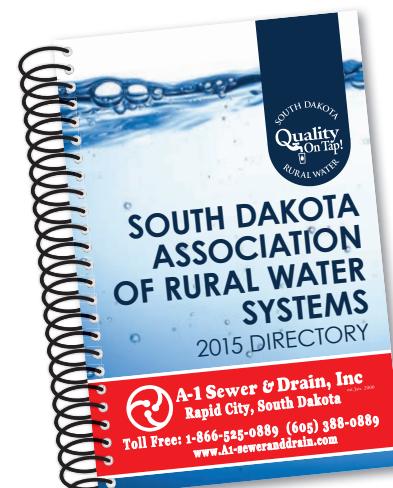
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# South Dakota Rural Water AWARD NOMINATIONS

Do you know someone who is doing a great job? Goes above and beyond the call of duty? Has your water system achieved excellence this year – or has overcome some amazing challenges?

Give recognition where it is due by completing our Awards Nomination Form. Awards will be presented at the Awards Brunch at the ATC – January 14, 2016. **Application deadline is October 30, 2015.** Eligible nominees must be affiliated with a system member in good standing. The online form can be found at [www.surveymonkey.com/r/waterawards](http://www.surveymonkey.com/r/waterawards), or through a link on our website at: [sdarws.com/atc.html](http://sdarws.com/atc.html).

## WE ARE ACCEPTING NOMINATIONS FOR THE FOLLOWING CATEGORIES:

**RURAL WATER SYSTEM OF THE YEAR:** a member system who puts forth exceptional efforts to properly manage, operate, and maintain their drinking water system.

**RURAL WATER MANAGER OF THE YEAR:** Recognition for a manager of a Rural Water System for outstanding performance in operating a Rural Water System.

**RURAL WATER OFFICE PERSON OF THE YEAR:** Recognition for an administrative employee of a Rural Water System for outstanding performance in office management and procedures

**RURAL WATER SYSTEM OPERATIONS SPECIALIST OF THE YEAR:** Recognition for a State of South Dakota Certified Operator who is actively working for a Rural Water System with outstanding leadership ability/accomplishments in drinking water.

**MUNICIPAL MANAGER OF THE YEAR:** Recognition for a municipal manager for outstanding performance in managing a municipality.

**MUNICIPAL OFFICE PERSON OF THE YEAR:** Recognition for an administrative employee of a municipality (i.e. clerk, finance officer, etc.) for outstanding performance in office management and procedures.

**MUNICIPAL OPERATIONS SPECIALIST OF THE YEAR:** Recognition for a State of South Dakota Certified Operator who is actively working for a municipality with outstanding leadership ability/accomplishments in drinking water.

**CARROLL ANDERSON MEMORIAL:** The Carroll Anderson Memorial Award is a tribute to the exemplary work of Carroll Anderson who gave generously of his time, talents, and efforts to the Kingbrook Rural Water System and the South Dakota Association of Rural Water Systems. This award recognizes an individual's outstanding voluntary contributions to the advancement of rural community water systems in South Dakota, and is the greatest tribute the Association can bestow recognizing an individual's contributions to both the member system and to SDARWS.

**FRIEND OF RURAL WATER:** This distinguished honor is awarded to agencies, organizations, or individuals who have lent a hand in supporting this fantastic phenomenon we call Rural Water. The ability to provide life's essential need, water, to all the citizens of South Dakota was not done by one person or organization; it is a collective effort encompassing many.

**SPIRIT OF RURAL WATER:** This award was introduced in 2010 and is presented to an individual, business or group that goes above and beyond for a rural water system or rural water cause. South Dakota Rural Water wants to recognize exceptional rural water advocates that stand out from the pack because of their commitment to rural water issues and/or their passion for the job. Eligible candidates include rural and community water consumers, employees, directors, as well as lawmakers, businesses, or any person or group that puts forth a noble effort to advance rural water.

**DONALD B. POSPISHIL:** This award honors the work of Don Pospishil who dedicated many years of his life to helping small water systems across South Dakota. The Donald B. Pospishil Award is awarded to individuals who demonstrate leadership abilities in the water supply field, provide quality services to consumers, and exhibit professionalism and dedication while operating and maintaining a small water system.

# *South Dakota Rural Water*

## **2015 AWARDS NOMINATION FORM**

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or through a link on our website at: [www.sdarws.com/atc.html](http://www.sdarws.com/atc.html)

Name of Nominee \_\_\_\_\_ Title \_\_\_\_\_

Employer \_\_\_\_\_ Years with System \_\_\_\_\_

Name of person making nomination \_\_\_\_\_

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### **PLEASE INDICATE AWARD:**

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|--|--|
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| <input type="checkbox"/> Rural Water Manager of the Year               | <input type="checkbox"/> Municipal Operations Specialist of the Year |
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| <input type="checkbox"/> Rural Water Operations Specialist of the Year | <input type="checkbox"/> Friend of Rural Water                       |
| <input type="checkbox"/> Municipal Manager of the Year                 | <input type="checkbox"/> Spirit of Rural Water                       |
|  | <input type="checkbox"/> Donald B. Pospishil                         |

**SUPPORTING INFORMATION:** Please provide a narrative for why this nominee deserves the award.  
(Outstanding accomplishments, contributions to system and state association, certifications,  
awards, exemplary work on legislative issues, leadership, civic activities, etc.)

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# 29th Rural Water Open Highlights

## Elmwood Golf Course | Sioux Falls, SD

A field of 143 helped make the 29th annual Rural Water Open a success on July 21. The 2015 edition of the Rural Water Open saw the return of the tournament to Elmwood. Due to ongoing improvements on the course, the east course and west course were utilized for the Golf Tournament; traditionally, the north and west courses have been used. This year marked the inauguration of the WaterPac Putting challenge – which was held in addition to our traditional WaterPac Hole.

When it comes to golfing, the Rural Water Open brings out an array of talent. At shotgun time, the field consisted of 36 four-man teams. Scores were competitive this year with 24 teams posting scores below par. Scores ranged from twelve under (59) to ten over par (81). Average score this year was 68.7, or two under par for our 36 teams. The Corporate Sponsors that helped make this event possible are listed on page three. Without their sponsorship, it would be impossible to award prizes to all players. All of the team prizes, in both flights, were awarded prizes based on Corporate Sponsor donations.

Following Rural Water Open traditions, the tournament format included four-person teams playing an 18-hole scramble with no Championship or Amateur Division. After the scores were posted and verified by the scoring team of Jim Zeck and Steve Attema, all team scores were listed from lowest to highest, and then the field was split in half with 18 teams in two flights. To summarize, the 1st flight teams ranged from -12 to -2; 2nd flight ranged from -2 to +10. Needless to say, with 39 teams participating we had numerous ties. For example, five teams tied at -10, and four teams tied at -5. To determine proper team places we reverted to a scorecard playoff starting with the number one handicap hole.

Our first place team from the 1st flight consisted of a group of golfers from Maguire Iron. Our winner from flight 2 was a team from Banner Engineering. Our last place team was again Kurt Pfeifle, Dwight Gutzmer, Scott Gross, and Dennis N. Davis. Congratulations to the winning teams!

Our Flag Prize Winners Included: Closest to the Pin on #4, –

Chad Johnson (\$100 donated by Visu Sewer); Longest Drive on #6 – Ben Rinken (\$100 provided by our Corporate Sponsors); Closet to the Pin on #8 – Lori Seten (hybrid club donated by Risty Benefits); Closest to the Pin on #12 – Gary Hyatt (Pelican Cooler donated by DSG); Closest to the Pin on #17 – Ron Fenney (\$100 provided by our Corporate Sponsors); Longest Putt on #18 – Brooks Underberg (\$60 cash for each member of his team donated by HR Green).

The Government Relations Committee's WaterPAC was again held on a par 3 hole. The WaterPAC hole gives each golfer who buys a \$5 chance an opportunity to be entered into a drawing for \$100; if they hit their drive on the green, if they do not make the green, they are still entered into a prize drawing. This year the WaterPac hole raised \$680. Special thanks go to SDARWS Past-President Dan Carlson, Vice-President Dale Thompson, and Government Relations Committee member Otto Hagedorn for manning the WaterPac Hole.

The 19th Hole Putt Challenge offered a new wrinkle to the golfing experience this year. Participants attempted to sink three balls from about 40 feet. For each putt made, the golfer won a Pro V1 golf ball and was entered into a drawing. The challenge turned out to be quite a feat! We had 112 attempts at the challenge with 19 sinking only one putt. Along with raising \$560, the putt challenge for WaterPac, this 19th hole also featured a refreshingly cold glass of beer to eager participants. Troy Larson, Executive Director of Lewis & Clark RWS, won the drawing for a sterling silver rural water ball marker. Our thanks go out to Billion Automotive for sponsoring this challenge.

In conclusion, we would like to thank all the sponsors, participants and volunteers who helped make this event successful. We are proud to report that the contributions to WaterPac from the 2015 Rural Water Open totaled \$1,240. Golfers please remember to check out the Corporate Sponsors on page three – and when they stop by your facility let them know you appreciate their generosity and continued support. We hope to see you next year on the course! ♦





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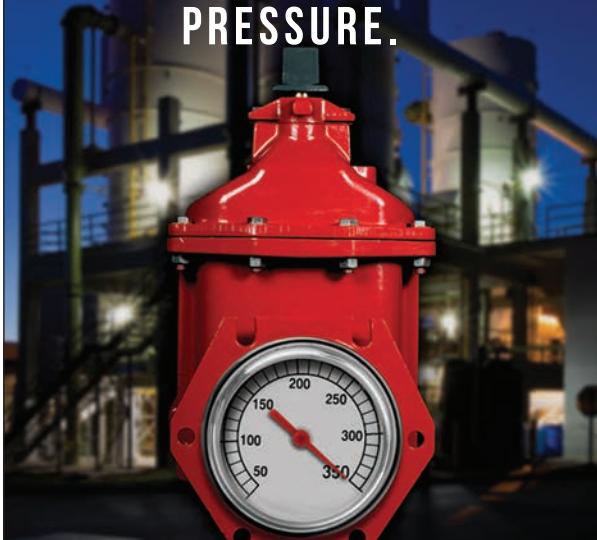
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## CALL FOR PAPERS

The South Dakota Association of Rural Water Systems is looking for presentations for our 2016 Annual Technical Conference in Pierre, SD.

Please submit your abstract for SDARWS's 2016 Annual Technical Conference. Presentation themes may include, but are not limited to the following:

- Drinking water security strategies and tools
- How Water Storage Can Impact Water Quality
- Fair Labor Standards Act
- Hands-on sessions:
  - ◆ Control valve repair kits
  - ◆ Hydrant maintenance and repair
  - ◆ Solution pump repairs (diaphragm and peristaltic)
  - ◆ Repair couplers, saddles, wet tapping
- The importance of Cross Connection Control
- Water Rights for public systems
- Ice Pigging to clean water and sewer pipelines
- Source water protection and sustainability of water supplies
- Climate change, water and energy efficiency, and conservation
- Clean Water Act/SDWA connections, nutrient pollution, and Harmful Algal Blooms (HABs)
- Emerging drinking water treatment technologies and optimization of current technology
- State revolving loan fund tools and techniques/green infrastructure strategies
- Small systems: TMF, sustainability strategies, technologies, and compliance
- Workforce, operator certification, and/or technical assistance initiatives
- Data management
- Distribution system issues
- Emerging contaminants in drinking water, both chemical and microbial
- Drinking water research
- Sanitation and wastewater management
- Risk assessment, risk communication and consumer outreach
- Implementation of regulations – challenges and successes

If you would like to make a presentation, please submit a one-page abstract with the proposed presentation title, and the name, title, affiliation, and contact information for the speaker to:

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PO Box 287  
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or email [ATC@sdarws.com](mailto:ATC@sdarws.com) by October 15, 2015!

Or submit online – [www.sdarws.com/atc.html](http://www.sdarws.com/atc.html)

**All submissions must comply with the following guidelines:**

1. Deadline for submissions is October 15, 2015
2. Abstract submissions are limited to text only.
3. The conference planning committee will select submitted abstracts for sessions.
4. Please include a five sentence biography along with a 500 word abstract or description of your presentation. ♦

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# SEWER LINE CLEANING

By Jerry Hemeyer, SDARWS Wastewater Technician

The temperatures outside are falling – which can only mean one thing – now is the time to start maintenance on your wastewater collection and storm sewer systems. If your system was cleaned and televised in the past, you should look at the past records to determine if there were trouble spots that require inspection every year. Begin your maintenance by opening up manholes to check for debris – and inspect the condition of the manhole. Contact the street department to see what streets will be repaired or repaved over the next year. If street work is scheduled, make sure to have the line televised to determine whether digging may be required – as it may also be a good time to fix a problem area. Also check with the homeowners along the street to make sure their sewer services are working along the area to be paved. By doing these simple checkups you can schedule repairs that make the most sense – as digging up a sewer the year after paving a street isn't a wise use of tax payer's money.

If your system owns cleaning equipment, start it up, and make sure to remove the debris that is brought out of the pipe. The rule is jet up to 25 feet to check the amount of material that is sitting in the pipe. If your system does not have access to a vacuum unit, this material must be removed by entering the manhole to remove the material with a shovel, pail and rope. Going into

a manhole requires the operator to have confined space safety equipment. This equipment should include: a harness, a tripod lift device for the operator in the manhole, , air blower, and a gas monitor to check the quality of the air in the manhole. One suggestion is to hire a local septic tank cleaner to vacuum out the solids out of the manhole rather than sending personnel in the manhole.

When removing the material, check it for pieces of pipe or any other unfamiliar material. If while cleaning, the material that is brought back out turns out to be a lighter color, this may indicate a hole in the pipe. If you witness this, stop cleaning and use a sewer camera to determine if there is a problem in the pipe.

When hiring a contractor, measure the footages so the contractor can give you an accurate price. Maybe even contact a neighboring system to see if they want to clean and televise part of their system to potentially help save on some of the cost. Part of the cost of hiring a contractor is mobilization – and if you can share the services with a neighboring system – you might be able to save some money.

SDARWS also offers video inspection services to our members – details can be found on our website or by calling Jerry at 605-201-0170. For more information on sewer line cleaning, or any question on your wastewater system, please give us a call. ♦

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# A “FLUSHABLE WIPE” EPIDEMIC?

*By Pete Lies – Electric Pump, Inc.*

While jokes and stories abound at wastewater gatherings and conferences regarding items found in our municipal collection systems, one class of items has emerged as no laughing matter. In fact, the ramifications have taken the discussion to the national stage. The items in question are “flushable wipes.”

As you will see later in this article, the term flushable is greatly exaggerated in almost all cases. A majority of wastewater operators and maintenance technicians are familiar with the problems these solids cause in the waste stream. Problems like full trash baskets, plugged pumps and blinded screens directly impact municipalities where they can least afford it, the checkbook. Costs associated with equipment damage, additional man hours spent, lift

stations cleaning services and emergency call outs can be significant and have prompted manufacturers such as JWC Environmental and Flygt Corporation to devote time and resources to study the problem and provide potential solutions. The findings listed below have been gathered by those manufacturers and includes information on the progress that has been made to reduce the impact of “flushable wipes.”

JWC Environmental Inc., manufacturer of the “Muffin Monster” wastewater grinder and related screening products has compiled the following information which outlines the problem, puts forth some current solutions and discusses what action is being pursued currently with various associations and agencies. The perpetrators of these costs, the wipes, are showing an increase in sales of 16 percent per year resulting in a 12-14 billion dollar per year industry. While the term “wipes” encompasses the following items; paper towels, baby wipes, cleaning wipes, feminine hygiene products and flushable wipes, it should be noted that 92 percent of these products are not considered truly flushable.

In an effort to reduce the increasing costs to collection systems, efforts have been made in the areas of wipe technology, public education and pump station equipment technology. Kimberly Clark, makers of Cottonelle wipes have reformulated the wipe itself with smaller fibers. The smaller fibers break up and disperse after two hours in water. These reformulated wipes were tested by Xylem in one of their submersible pump installations and resulted in no clogging or increase in electrical draw on the pump motors. The goal is to improve wipe technology to the point where it approaches the dispersability of toilet paper in water. Guidelines set forth by WEF and wastewater professionals are to disperse the wipe fibers within 30-60 minutes.

As the changing wipe technology is coming closer to the target for dispersibility, the best way to address the issue is by keeping the wipes out of the waste stream altogether. Customer education should begin with the wipes packaging. There seems to be no consistency with the warning labeling that identifies the products as non-flushable. In addition, many of the warnings are hidden by folds in the packaging. Public service announcements have been made to get the message out to the public. These attempts have met with positive results when the message is consistently broadcast by television or radio but have fallen short when the public is no longer exposed to the messages. Public education seems to make the most impact when focused on dangers, such as clogged pipes, to the individual homeowner. Unfortunately there seems to be a disconnect between the potential cost to the individual homeowner and the big picture costs to the collection system as a whole.

The financial impact to municipal budgets has forced operators to look at pump station technology to combat the increasing maintenance costs. One potential solution is to change the lift station pump

*...continued on page 29*

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**1** Centrifugal, positive displacement and turbine are all

- a. Types of valve
- b. Types of Pipe
- c. Water Plant Chemicals
- d. Types of pumps

**2** Water hammer is most likely to be caused by

- a. Dissolved gases in the water
- b. Closing a valve to fast
- c. Tuberculation
- d. Ruptured water lines

**3** Positive displacement pumps should be operated when

- a. Suction and discharge line valve are closed
- b. Suction and discharge line valves are open
- c. Suction line valve are close and discharge line valves are open
- d. Suction line valves are open and discharge line valve are closed

**4** Pump seals can be classified as

- a. Balanced and unbalanced
- b. Packing ring or mechanical
- c. Flat and smooth faced or round faced
- d. Factory or custom

**5** During the night, algae cause the pH of the water to

- a. Increase
- b. Decrease
- c. Remain about the same as during the day
- d. Fluctuate up or down depending on the species of algae that dominate

**6** Which of the following contributes to the creation of algae blooms?

- a. Increased Turbidity
- b. Increased Air Temperature
- c. Increased Nutrients
- d. Increased Wind Action

**7** What is the most probable cause of a pinging sound coming from a pump?

- a. Descaling
- b. Cavitation
- c. Corrosion
- d. Hardness

**8** Which of the following parts in a centrifugal pump restricts flow between the impeller discharge and suction areas?

- a. Wear rings
- b. Shaft rings
- c. Packing rings
- d. Lantern rings

**9** What effect will algae in a reservoir have on dissolved oxygen (DO)?

- a. Lower the DO during the day and increase the DO during the night
- b. Slowly increase the DO during both the day and night
- c. Increase the DO during the day and lower the DO during the night
- d. Slow decrease the DO during both the day and night

**10** Determine the brake horsepower (bhp) if the motor has an efficiency of 91% and the horsepower (hp) is 40.

- a. 30 bhp
- b. 36 bhp
- c. 44 bhp
- d. 67 bhp

## Answer Key

1) D 2) B 3) B 4) B 5) B 6) C 7) B 8) A 9) C 10) C

# MIDCONTINENT

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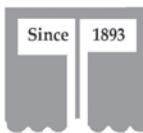
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## FLUSHABLE WIPES: continued from page 24...

type from a standard non-clog design to a chopper or grinder unit design with the capability to reduce solid size. JWC and other manufacturers have developed screening technologies to combat the issues at both the pump station and the headworks locations. Bar screens, fine screens, auger/screen combinations and band screens are all viable options when the goal is to remove the solids from the waste stream before downstream treatment issues are encountered. These screening technologies are estimated to capture anywhere from 42 to 93 percent of solids in the waste-stream. Finally, the Muffin Monster wastewater grinder by JWC is available with a special cross cut blade design specifically suited to reduce the flushable wipes to a size that will not clog downstream processes.

As all of these solutions are being explored by individual municipalities, there are initiatives that have taken shape in the area of new regulations for the manufacturers of "flushable wipes." WEF is working with INDA (the association of wipes makers) in conjunction with other wastewater groups including NACWA, APWA, and the Canadian water and wastewater association to develop solutions to the problem. The focus is development of flushability guidelines wastewater professionals can agree with and to educate the public on what to flush. Finally, the Federal Trade Commission has reached a settlement with NicePak (one of the world's largest makers of wipes) to label wipes as flushable only if they can substantiate the claim.

While awareness is growing regarding the issue at hand, Xylem Corporation, manufacturer of Flygt submersible wastewater pumps, has done research of their own. Flygt pumps are located in lift station and wastewater treatment applications worldwide. The efficiency and longevity of these pumps is directly affected by the problem of flushable wipe. While the pumps can pass these solids on an individual basis, large volume of such non-dispersible debris can be problematic.

Xylem research indicates that the wipes industry is introducing 3-4 new products monthly to a five billion dollar and growing market. Not only does the increase in market growth present a challenge in the quantity of wipes consumed, but the EPA emphasis on low/no flow toilets and low flow shower heads reduces the flowable nature of wastewater collections. Based on inquiries made by Xylem to INDA (Industry of Non-woven Mfg.), INDA member companies attitudes seem to be working counter to resolution of the issues identified by municipalities and wastewater associations. Wipe manufacturers are not very willing to put 'Do not flush' logo on valuable front of package marketing space. While INDA has developed a 'Flushability Assessment,' it contains some vague language and is voluntary to member organizations.

Flygt is being used as an external consultant for the current project to determine a wipes' flushability. In fact Flygt pumps are being used as a basis for product certification as flushable by the INDA. The INDA standards to list a product as flushable are as follows:

- Product must clear toilets and properly maintained drainage pipe systems under expected product usage conditions
- Product must be compatible with existing wastewater conveyance treatment, reuse and disposal systems
- Product must become unrecognizable in a "reasonable" period of time and be safe in the natural receiving environments

While flushability continues to be a focus, the immediate costs and problems associated with wipes continue to plague municipal collection systems. In an effort to service end users' needs, Flygt and other pump manufacturers have developed pump impeller technology better suited to handle the problems of "flushable wipes."

Flygt began by identifying the typical problem areas of the standard non-clog design which allow pump clogging. The first problem spot is rags/wipes that get caught on the impeller vane or in the eye of the impeller. Second, the impeller can be jammed by rags caught between the impeller and wear ring. Finally, vortex non-clog designs are susceptible to solids plugging the volute full and not allowing any product to pass. The result of extensive testing and design research is the Flygt N impeller design. This two vane semi open impeller design operates with a self-cleaning, hydraulically efficient design. Since the year 2000, more than 100,000 pumps utilizing this impeller design have been successfully pumping raw unscreened sewage and sludge. In numerous documented case studies the impeller technology has been successful in reducing energy and maintenance costs associated with clogging caused by rags and wipes of all types.

In conclusion, it is evident that the disposable wipes industry is showing no signs of slowing down. While a reduction of wipes in the waste-stream resulting from education of the general public is the best possible solution, municipalities continue to deal with the cost of the problems at hand. As evidenced by the research provided above; national and state associations in partnership with manufacturers have been pursuing more stringent regulations and solutions to provide truly "flushable" wipe technology.

At present it seems that awareness of the problem and the efforts of manufacturers such as JWC Environmental and Flygt to provide technologies effective at handling the debris in our waste streams is the most immediate way to deal with the "flushable wipe" epidemic. ♦

### References:

Statistics and data provided by JWC Environmental and Xylem-Flygt Corporation

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# WHAT WE DO FOR YOU

Dennis N. Davis  
Executive Director

**R**ecently, we have been asked to explain where member's SDARWS dues dollar go. The first thing that comes to mind is lobbying – but it goes a lot further than that. Below are some highlights of what SDARWS does for our membership.

**Lobbying** – South Dakota Rural Water is the only water and wastewater association monitoring legislation in both Pierre and Washington, DC. We register three lobbyists each year during the state Legislative Session. The Association monitors all bills affecting municipalities, rural water and wastewater systems.

**Classroom Training** – SDARWS hosts over 60 state certified training sessions throughout South Dakota each year – training water and wastewater operation specialists and governing officials on regulatory information, management, financial stability, operation and maintenance of their systems, board and council development, and more.

**Hands-on Training** – We provide hands-on training for leak detection, cross connection testing and surveying, wastewater, GIS and GPS mapping, etc.

**Technical Assistance** – SDARWS provides on-site assistance in virtually every area of utility operations, maintenance and management. We have a variety of tools and equipment available to assist our systems with any issue that may arise. From our leak detection trailers to our sewer camera, we are a one stop shop when it comes to water and wastewater assistance.

**Annual Technical Conference** – The state's largest water/wastewater conference provides water and wastewater educational presentations for board members, managers, and water operations specialists from all corners of South Dakota, and features an exhibit hall with the latest and greatest tools and services to meet your utility's needs.

**Safety Training** – Our safety trainer conducts 168 safety training classes per year – approved to meet state requirements and provide workers with a safe working environment.

**Source Water Protection Plans** – SDARWS has a source water protection specialist on staff to help systems develop and implement plans to protect the quality of drinking water.

**Emergency Response Assistance** – SDARWS works hand in hand with SDWARN (South Dakota Water/Wastewater Agency Response Network), and provides assistance and equipment during emergency situations.

**Loan Programs** – Designed to meet the financial needs of our membership, low-cost loans are available for short-term repair costs, small capital projects, or pre-development costs associated with larger projects.

**Publications** – SDARWS strives to keep our membership informed of training classes, events, legislation and newsworthy items affecting our industry through our bi-monthly *ServiceLine Magazine*, *Ripples Legislative eNewsletter*, and our award winning *SD Rural Water Monthly eNews*.

**Educational Outreach** – SDARWS participates in both the Big Sioux Water Festival and the Sioux Empire Water Festival, as well as hosts a yearly public water carnival to educate local children on the conservation and protection of water.

**Membership Directory** – Contains contact information for regional and municipal utilities, government agency contacts, and industry-related businesses in the state and upper Midwest.

**Website Design** – SDARWS will work directly with your utility to design an affordable website that fits your needs.

**Website** – Our newly re-designed website is a one-stop-shop for all things SDARWS. Find up-to-date contact information for SDARWS board members and staff, use the interactive rural water system map to find contact information for each system, keep up to date on major SDARWS events such as the ATC and Golf Tournament, register for training classes, read our publications online, find and place job openings, Stay up to date with SDARWS's legislative activities, find resources to help with sustainable management, and read up on studies produced by the Regional Water System Research Consortium – and more!

We conduct more water and wastewater training than any other organization in South Dakota. Our staff conducts technical assistance on-site to help operators, finance officers, and boards/councils understand what it takes to run a truly great utility.

SDARWS has on staff, two training specialists, four circuit riders, a source water protection specialist, wastewater specialist, communications & marketing coordinator, office manager, and an executive director. These 11 dedicated, highly trained, and competent individuals are committed to lending assistance to South Dakota rural water systems, municipalities, and small community systems with the goal to improve water treatment, delivery and overall water quality for the people of South Dakota. Our mission is to provide the highest quality services that meet the needs of and supports the collective efforts of our water and wastewater membership. We strive every day to do what we do well and provide the services that help our membership to do their jobs well. Protecting the health and safety of those drinking water from public water systems is a pretty important thing to do well. ♦



## Our Waterworks Team Will Customize The Perfect Water Solution For You.

DSG knows that moving water is both complicated and important. We also understand that every situation is unique. That's why we look at each job from the customer's perspective, creating custom systems from beginning to end. Finally, you can rest assured that you are working with experienced professionals you can rely on.

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Working with multiple suppliers can be frustrating. When it comes to water and wastewater systems, DSG offers you the entire package and we'll continue to work with you long after installation is complete.

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- **We're here for the long haul.** After installation is complete, you can count on our team to keep your system running smoothly for years to come.

**The right water solutions starts with  
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## CASE STUDY

### 24-Year-Old Tank Installed in 1987 Gets Stunning Facelift

Installed: 1987

Client: Rochester Public Utilities

Location: Rochester, MN

Tank Type: Aquastore® Glass-Fused-to-Steel

Storage Capacity: 1 Million Gallons

Contractor: Engineering America



#### PROJECT OVERVIEW:

Aquastore glass-fused-to-steel tanks never need to be sandblasted and painted. However, after decades of use, some customers wish to clean up the tank cosmetically. The tank can remain in service during the thorough power washing, as well as during fillet replacement and installation of nut covers.

Engineering America worked with the city of Rochester, Minnesota, to give their water storage tank a “facelift” after **24 years**. The interior and exterior cleanup provides extra life to the tank and gives it a “like new” appearance.

Engineering America’s professional service team power washed and cleaned the tank exterior walls, removed existing sealer and replaced it with new polyurethane sealer, then installed white HDPE plastic covers over exterior nuts and washers. This highly cost-effective process produced a refreshed looking tank in Rochester.

**“We’re pleased with how the project turned out.”**

Doug C. Rovang, P.E.  
Senior Civil Engineer  
Rochester Public Utilities



Power Washing, Fillet Replacement and Nut Covers

**THINK TANK • think process**