ServiceLine

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

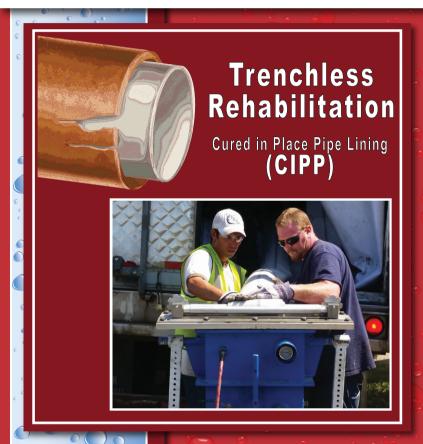




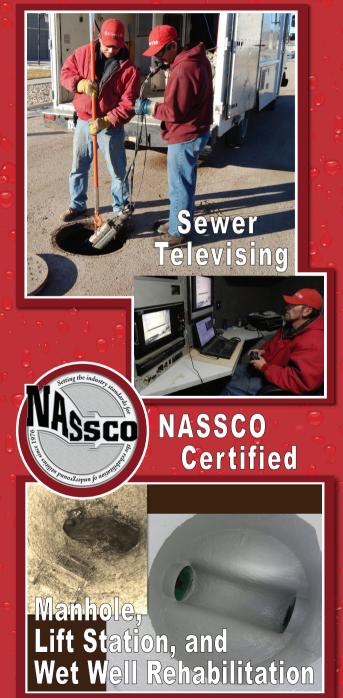
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Dan Carlson SDARWS President

ATC Recap

This year's 2015 ATC was a resounding success. We were happy to host National Rural Water President Charles A. Hilton. We would especially like to thank our Premiere Sponsor AE₂S; Gold Sponsor Bartlett & West; Awards Brunch Sponsor CompassTools; Break Table Sponsors: HR Green, Butler Machinery and A-1 Sewer; Hotel Key Sponsor SEH; Lanyard Sponsor: AE₂S; Bag Sponsor: HR Green. See page 16 for the reacap. I would also like to thank our exhibitors – for without you, our event would not be possible.

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In This Issue

In Appreciation

Events Calendar

SDARWS Fee Based Services

10 2014 Leadership Seminar

 $14\,$ New Equipment Aids in Leak Detection

16 ATC Conference Highlights

20 2015 Award Winners

23 How to Determine the Pumping Rate of Your Lift Station

24 SDARWS Hosts Sustainable <u>Management</u> Workshops

27 Certification Questions

26 Sustainable Management Workshop

29 Proposed Nonprofit Corporation Act Legislation

Cover Photo: American Buffalo grazing in Custer State Park.

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Send Correspondence to: 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

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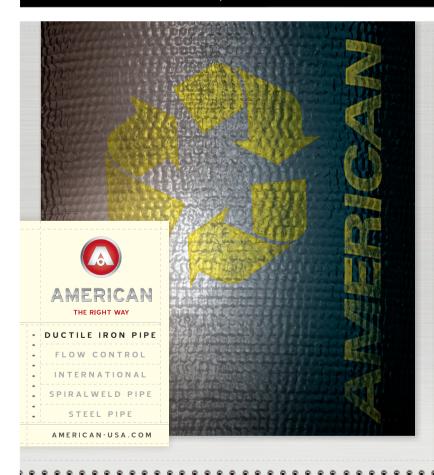


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Dear, South Dakota Rural Water, Staff, and Circuit Riders.

Thank you for the prestigious award given to the City of Gregory. It takes the efforts of many people to provide quality water and waste water services to our customers. I would especially like to thank the circuit riders for their time and advice to make this possible.

Thanks.

Mark Fortuna Public Work Superintendent City of Gregory

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FEBRUARY 2015

10-12 Water Collection/Water Distribution Sioux Falls Water Reclamation 4500 N. Sycamore Street Sioux Falls, SD - 605-367-8188

10-11 NRWA Rural Water Rally Hyatt Regency - Capitol Hill 400 New Jersey Avenue NW Washinaton, DC - 202-737-1234 www.nrwa.ora/rally

24-26 Basic Wastewater Treatment Rapid City Ramkota 2111 N. Lacrosse Street Rapid City, SD - 605-343-8550

MARCH 2015

19 Stabilization Pond Workshop Highland Conference Center 2000 Highland Way Mitchell, SD - 605-990-1575

24-25 Mapping & GIS with TerraSync SDARWS Madison Office 203 W. Center Street Madison, SD 57042 - 605-556-7219 \$550 Registration Fee

24-26 Wastewater Collection/Water Distribution

Crossroads Hotel 100 4th Street SW Huron, SD - 605-352-3204

APRIL 2015

7-9 Intermediate Water Treatment Holiday Inn - Spearfish 305 N. 27th Street Spearfish, SD - 605-642-0203

APRIL 2015

14 Water Distribution Workshop Rapid Valley Sanitary District 4611 Teak Drive Rapid City, SD - 605-393-1050

15 Water Distribution Workshop Winner Fire Hall 100 E. Tripp Avenue Winner. SD - 605-842-0359

16 Water Distribution Workshop Colman Community Center 120 N Main Avenue Colman, SD - 605-534-3611

29-30 Water Technology EXPO Rapid City Ramkota 2111 N. Lacrosse Street Rapid City, SD - 605-343-8550 \$40 Registration Fee

MAY 2015

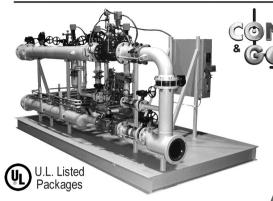
Intermediate Water Distribution Rapid City Ramkota 2111 N. Lacrosse Street Rapid City, SD - 605-343-8550

12-14 Advanced Water Treatment Sioux Falls Water Purification 2100 N. Minnesota Avenue Sioux Falls, SD - 605-367-7025

JULY 2015

21 **SD Rural Water Open Golf Tourney** Flmwood Golf Course 2604 Russell Street Sioux Falls, SD - 605-367-7092 \$60/player

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



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	\$100.00, \$1/page
Digital Files: Google layer, mag	layers\$50.00 per order
	nated\$50.00

Note: Equipment fees cover up to 1 day of use/service unless otherwise specified.



By Jeremiah Corbin, SDARWS Source Water Protection Specialist

The ninth Annual Leadership Conference was held November 19-20 at the Pierre Ramkota. Sixty-eight leaders from 21 rural water systems attended this annual board training event. Consistent with prior years, the topics for this training event were developed based on feedback from attendees of prior leadership training events.

The event started with a welcome from President Dan Carlson and Circuit Rider Nick Jackson presenting the Stars and Stripes during the National Anthem. Following the patriotic demonstration, Dennis N. Davis provided an agenda overview and information collected from the previous year's leadership

The first session of the seminar was a manager discussion panel. The panelist discussed diversifying operations and long range planning. The esteemed panelists for this session included: Steve Harper, General Manager of WEB Water; Kurt Pfeifle, General Manager - CEO of Mid-Dakota; and Martin Jarrett, General Manager of Big Sioux.

Jarrett began by providing an overview of Big Sioux's efforts to diversify the system's income streams while addressing the challenges faced by small rural systems in maintaining sustainability. Big Sioux has partnered with large dairy farms and an egg laying facility to secure an independent water source for those facilities, and has agreements in place with these entities to assist them in maintaining their wells. The system also provides wastewater service to three communities within their service area.

Pfeifle then provided information on Mid-Dakota's expanded efforts to assist communities in their service area with wastewater service. Attendees were provided with a copy of the agreement Mid-Dakota utilizes when negotiating wastewater service with their communities.

Harper delivered a brief presentation on WEB Water's new subsidiary: WEB Water Bottling Company which was incorporated in the summer of 2014 which includes a water delivery service around the Aberdeen area. This provided an outlet for city homes and businesses to enjoy WEB Water. Harper's presentation included information on the treatment and bottling technique along with delivery statistics.

The next session of the 2014 Leadership Seminar was another panel discussion. This panel's subject was Rural Water System Risk Management and Coverage. The well-regarded participants













for this panel included: Dan Carlson, Chairman of Big Sioux and the President of SDARWS; Jim Thyen, Director of Sioux and SDARWS; and Justin Overman, Account Executive with Howalt + McDowell Insurance.

Justin Overman started the discussion for this panel. He covered some fundamental risk management issues, Insurance for Rural Water / Wastewater, and Commercial Crime Coverage.

In regard to risk management issues, Overman identified some techniques systems can implement to minimize their exposure to risk. The risk management conversation migrated to insurance for water / wastewater. The point to take home from this topic is that not all insurance is the same, water systems need to seek coverage based on the systems potential risks. The final portion of Overman's presentation involved Commercial Crime Coverage, this subject dealt with insurance for employee theft.

After Justin Overman completed his presentation, Dan Carlson gave an overview of insurance claims that Big Sioux has filed based on some weather related accidents. To reinforce the diversity of challenges rural water systems face, Jim Thyen provided the attendees with pictures of recent damage that Sioux has suffered due to ice and lightning.

The final formal presentation on Wednesday afternoon was Board Members Fiduciary Responsibility by Margo Northrup. Northrup is a partner at Riter, Rogers, Wattier & Northrup, LLP and SDARWS's attorney and registered lobbyist at the state level.

Northrup's Board Member Fiduciary Responsibility presentation is a fundamental overview of the basic duties of a director. These duties can be categorized under five duties: duty of loyalty, duty of care, duty of obedience, duty of question and duty of attention.

This is the second year that this presentation was provided, after many requests. This is a very good topic for new board members to hear and seasoned board members to review. We received several comments stating that this presentation should be given annually.

Our evening keynote speaker was Dr. Sid Goss. He is a retired professor from the South Dakota School of Mines and Tech. Dr. Goss provided conference attendees with information on demographic and population changes in South Dakota. He incorporated the South Dakota Regional Rural Water map into his presentation. This provided attendees an opportunity to see how population trends will affect their systems. This presentation delivered information on areas where population growth will provided opportunity and also addressed areas where population decline will correspond with future challenges – and was thoroughly enjoyed by all in attendance.

Thursday morning started off with a presentation on Media Tools where SDARWS Communications and Marketing Coordinator Jennifer Bame gave a presentation on Quality on Tap! NRWA Branding, Annual Meeting Assistance presentation was given

...continued on page 12

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LEADERSHIP RECAP: continued from page 11...

by. The crux of Bame's presentation is that Public Relations is a powerful tool and should not be underestimated!

Bame began her presentation by discussing NRWA's Quality On Tap! initiative. Quality on Tap! is a nationwide, grassroots public relations and awareness campaign designed especially for the drinking water industry. The framework for the campaign was created by water professionals who understand the need for better community support for their systems.

Ten years ago, several rural water systems in South Dakota took on the Quality on Tap! initiative and developed a consumer newsletter. Bame highlighted the many benefits of this unique tool for regional water systems. She also provided information on how South Dakota Rural Water delivers material. Seminar attendees learned about fundamental information found on the www.sdarws.com website, such as the training calendar, certification study materials, and legislative information and conference activities. A sneak peak was given on the new website which is currently under development. Bame also highlighted the "eNews" monthly electronic newsletter, "Ripples," SDARWS's Legislative Newsletter and the "Job Connection" newsletter which shares water and wastewater job openings throughout our network.

Bame also provided information on SDARWS assistance for annual and special meetings - including the rental of sound equipment, projectors, screens and banners or electronic displays as value added service for members of the Association.

The main takeaway from Jennifer's presentation: Everything you do or say is Public Relations, and South Dakota Rural Water is here to provide you with assistance - so take advantage of what we have to offer.

Mike Schwab with Beehive Industries was the next expert to provide information at the seminar. Beehive provides a hosted software solution for GIS and Asset Management. Schwab provided a great presentation on a subject that a number of Rural Water Systems are struggling to address.

"This Beehive presentation was amazing! Seeing what that software can do made it worth my whole trip!" Dale Thompson, Kingbrook Board Member and SDARWS Vice-President.

Following the Beehive presentation, another brave group of board members came in front of the group to share their knowledge and experiences. This panel consisted of: Dodie Garrity, WR/L-J; Otto Hagedorn, Lincoln County; and Glen Gilbertson of Clay.

Garrity furnished examples of financial reports that WR/L-J utilize to communicate and monitor goals and the condition of their system. Hagedorn provided insight to committee formation, roles and responsibilities. Gilbertson also contributed to the discussion with a brief presentation on the background and statistics of his water system, and tools they use to motivate and recruit board members.

The final session of the 2014 Leadership Conference covered the subject of 1926(b). Margo Northrup once again came before the group to discuss various court rulings. Scott Buss, Minnehaha Community Water and Robin Dykstra, Lincoln County joined Margo to share their experiences with the City of Sioux

The conference concluded with President Carlson and Executive Director Dennis N. Davis thanking attendees for their time. Most attendees filled out evaluation forms with comments for topics for the 2015 Leadership Conference. Based on feedback attendees were very happy with the conference and generated more than enough topics for another successful Leadership Conference for 2015!









New Equipment Aids in Leak Detection and Other Services

By Morris Elcock, SDARWS Circuit Rider

ast year South Dakota Rural Water, with funding made available from various agencies, went ahead and purchased a variety of new equipment to help improve and advance the services we have available for our membership. This equipment will help us provide what I feel is the best leak detection services of any Association or company in the business of leak detection.

I would like to highlight the leak detection equipment that we have available to help our members find and replace any number of leaks they may be experiencing - starting with our three new hand held leak detectors. These devices give us the ability to listen for leaks on valves, hydrants and underground pipes. We also have a new Correlator which uses sensors that connect directly to hydrants, valves, or pipes to locate any leakage. In order to do a good job with a Correlator, we do need to know exactly (or to the best of your ability) the location of your line so that we can enter the correct length of the line into our computer software. We, as well as the diameter and type of pipe – whether it be cast iron, ductile iron, copper or PVC. Yes, believe it or not, it WORKS on PVC pipe.

Don't forget about our two leak detection trailers - they work great to flow test different sections of a distribution system. Flow testing works in this way: if the tested section of the system has no flow then there is no leak. If there is a continuous flow and we cannot determine where the flow is going, we then can use the Correlator to check the mainlines and service lines for the noise of a leak.

So what should a system do if they know they have a leak in say, a two or three block section of their distribution system, and want some assistance? Give us a call and provide us as much information as you can, such as: the location of the pipe, type of pipe, and if there are valves and hydrants on the line. This information is beneficial in helping us decide what equipment would be best to used to find your particular leak.

If your system is concerned about water loss - please don't hesitate to contact us. The first thing we will do is work with you to fill out a water audit form. This form provides us with vital information such as how many gallons your system has purchased or produced and compare that number to the gallons sold. We will also check to see if these figures are accurate, whether all of the services are metered, and are the meters accurate. The water audit not only provides us with the water loss as a percentage – it also shows the water loss in gallons per minute (gpm). Depending on what the gpm of water loss is can sometimes guide us where to start in determining where the leak is coming from. For a small system to have a water loss of 30% – 40% could translate to a leak of 2 gpm - 3 gpm. With a leak of this size we might recommend using the hand held leak detector and will begin the search by first checking the fire hydrants as a leak could be on a hydrant and not surface. It will also tell us how many feet of pipeline a system has and what type of pipe it is. We will visit with the system staff to learn more about the system to find out if all the valves work and whether or not the fire hydrants are in good working order. After gathering this information we will then be able to decide what equipment is best to use. Oftentimes the best way for us to assist a system



equipment-wise is to bring both the leak detection trailer to flow test a given section of the distribution system, and if we find a flow that we cannot confirm the location or direction of, we can then use the correlator to check the water lines for noise of a leak.

With each piece of leak detection equipment SDARWS has in it's possession - both old and new, I feel that we can now offer our members leak detection services that are second to none. There are fees attached to the equipment that we use which allows us to maintain and upkeep all of our equipment. A current price list of our equipment fees is posted on page 9 of this issue of ServiceLine.

While leak detection is one of our most-requested forms of assistance, please don't forget about the other important services that we offer. We are also able to flow test fire hydrants, GPS and map your system with our high-tech Trimbles, clean out mainline valve risers with our new Hydro-Vac, and view the condition of your wastewater collection lines with our state-of-the-art sewer camera. We will also be adding a brand new valve exerciser mounted to a Kubota ATV (due to arrive any day now) to our list of equipment available.

We already have a list of systems requiring assistance with their water loss for this year - so if you need help with your water loss, give us a call today so we can get started on a water audit and determine the best way to proceed with assistance. If you have any questions on our services or on any of the equipment available for hire, please make sure to contact the South Dakota Rural Water office at 605-556-7219.



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SOUTH DAKOTA RURAL WATER'S ANNUAL TECHNICAL CONFERENCE

√he South Dakota Rural Water Annual Technical Conference was held on January 13-15 at the Pierre Ramkota Inn. The 40th annual event hosted numerous training opportunities for board members, managers, superintendents, and operations specialists. The 2015 ATC Sponsored by AE₂S (Premier Sponsor) and Bartlett & West (Gold Sponsor) hosted 450+ attendees representing rural, municipal and small utilities from across our state and provided ample training and networking opportunities for all in attendance.

This year we offered the chance for exhibitors to be set up in the hallways during the training sessions, or to occupy the Exhibit Hall for our Legislative Reception and Technology Exhibits. Seventy-seven manufacturers, suppliers, and engineering firms shared their knowledge, expertise and hardware over the during this year's conference.

This year we had two pre-conference sessions followed by our Opening Session which began with the presentation of the colors by SDARWS Circuit Rider Nick Jackson. After the Pledge of Allegiance, Dr. Delvin DeBoer of AE₂S, the Premier Sponsor of the ATC, took the time to address the crowd and let them know how the future of water depends on them. Ross Bernstein then took the stage and captivated the attention of his audience with his Keynote Address titled "The Champion's Code: Life Lessons of Ethics & Accountability from the Sports World to the Business World." The presentation was based on his more than six years of research which resulted in two critically acclaimed series of sports-business books. Bernstein examined how and why certain teams win world championships - while also touching on the unwritten and unspoken rules in the world of sports, or "codes" as they are known – exploring the fine line between cheating and gamesmanship – and the consequences involved when that line is crossed. Bernstein's sports-based motivational presentation proved to be popular among those who attended his sessions.

After day one of pre-conference sessions and the Keynote address, conference attendees were ready for day two. Sessions were grouped for Board Members, Management, and Operations and touched on topics such as, "Water System Data Management," "Ozone & Biological Filtration for Drinking Water," "Using Online UV Spectrometers for Monitoring & Control of the Water Treatment











Process," "Mapping with Smartphones," Utility Knowledge and Management," and Asset Management. As we have in past years, a congressional panel was held with staffers from the offices of Senator John Thune, Senator Mike Rounds, and Congresswoman Kristi Noem. Ben Ready, Kim Olson and Andrew Curley fielded legislative questions from the audience and gave updates of the happenings in Washington, DC.

The spouses were also kept busy courtesy of our Spouse Program. This year those in attendance partook in a trip to a Mostly Chocolates to some decadent sample fudge and truffles, gathered in the courtyard of the Ramkota to enjoy a continental breakfast, ventured off to the State Capitol building for a guided tour, and enjoyed a soup and sandwich luncheon.

A legislative panel was held Thursday morning where attendees could drill the members of the 2015 South Dakota Legislature. Legislators in attendance at the panel were: Sen. Tim Rave, Sen. Troy Heinert, Sen. Billie Sutton, Rep. Spencer Hawley, Rep. Dennis Feickert and Rep. Steve McCleerey.

Combine the previous mentioned sessions with numerous other topics relating directly to water and wastewater systems and conference attendees had no problem gaining valuable knowledge to bring back home to their utility.

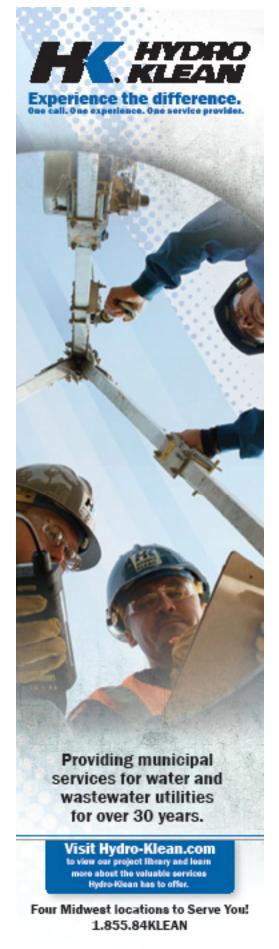
At the conclusion of this three day event, systems and individuals were honored during the Awards Brunch sponsored by CompassTools. Attendees were entertained by a slideshow showcasing pictures taken over the past 40 years of the ATC. Charles A. Hilton, President of the National Rural Water Association served as the awards ceremony keynote speaker. Hilton spoke on the future of Rural Water and read a poem titled, "And Then God Made An Operations Specialist based on the poem by Paul Harvey. SDARWS Trainer Jim Zeck took on the MC duties while SDARWS Vice President Dale Thompson and SDARWS Executive Director Dennis N. Davis handed out awards.

Thought to be retired last year, the Conventioneer's Extraordinaire Award (commonly referred to as the "Chicken Award) was resurrected in the form of a bobblehead doll in the likeness of the winner. To welcome in the new award, a giant chicken graced the crowd with his presence. Director Doug Feten of the Brookings-Deuel Rural Water System took home the (dis)honor of this award.

Conference Attendees Continue Support of Water Pac

Thanks to the many rural water systems that contributed items for the annual Water Pac raffle, your rural water association increased our Government Relations fund by \$4,580. Special thanks go out to all who purchased raffle

...continued on page 18



ATC: continued from page 17..

tickets and for lending your support towards our State and Federal legislative programs.

Water Taste Test Contest: We Have A Winner!

During our conference this year we put samples from 16 municipal and rural water systems before our esteemed group of judges. This year the top three samples were subject to a public judging by Tim Murray, Sherri Lewis, and George Vansco. The final testing round brought on a tie between the top two samples forcing the judges to smell, swirl and retaste their samples in what was proved to be a difficult decision. In the end, Sioux Rural Water System was crowned as the winner, The City of Chamberlain took second, and Grant-Roberts RWS took third. Sioux will go on to represent South Dakota in the National Rural Water Taste Test to vie for the distinction of "Best Tasting Water in the USA" during the NRWA Rally in Washington, DC on February 11th! Sioux took home the National title in 2010, so here's hoping for a repeat title in 2015!

Our thanks go out to attendees, speakers, and exhibitors and congratulations are in order for those who brought home individual awards. A complete list of award winners is on page 20.















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2015 ATC AWARD WINNERS

Service Line

2014 Rural Water Office Person of the Year Dawn Christenson, Big Sioux CWS

2014 Municipal Office Person of the Year Roxie Ebdrup, City of Madison

2014 Rural Water Operations Specialist of the Year Dan Schwarz, Lincoln County RWS

2014 Municipal Operations Specialist of the Year Grant Groos, City of Colman

2014 Rural Water System Manager of the Year Martin Jarrett, Big Sioux CWS

2014 Municipal Water System Manager of the Year Francis Toscana, Lead-Deadwood Sanitary District

2014 Water/Wastewater System of the Year City of Gregory
Mark Fortuna, Public Works Superintendent

2014 Rural Water System of the Year WEB Water Development Association Steve Harper, General Manager

2014 Carroll Anderson Award John Weidler, Kingbrook RWS

2014 Associate Member of the Year AE₂S - Dr. Delvin DeBoer

2014 Friend of Rural Water Award

Charles Hoffman - Former State Representative Corey Brown - State Senator Elsie Meeks - SD Rural Development Director

2014 Donald B. Pospishil Award Duane Walters, City of Freeman

2014 Spirit of Rural Water AwardClifford Dekker, Clark RWS
Donald Hloucha, Aurora-Brule RWS

2015 South Dakota Water Taste Test Sioux Rural Water System Heath Thompson, Manager







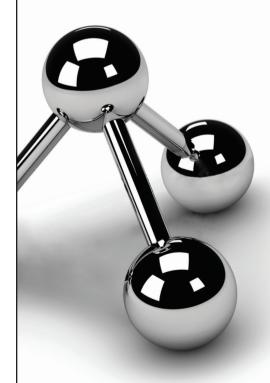












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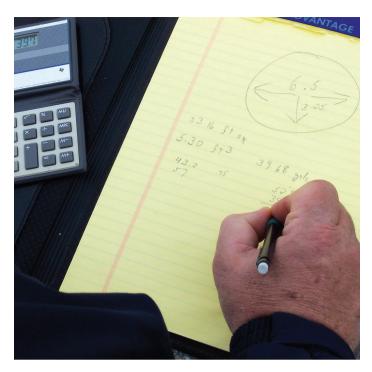
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How to Determine the Pumping Rate of Your Lift Station

By Jerry Hemeyer, SDARWS Wastewater Technician

hen South Dakota's Department of Environment and Natural Resources conducts an inspection of your Wastewater system, a record of the lift station calibration is required. The calibration is determined with the following math.

1. Find the cross sectional area of your wet well.

If it is square or rectangular:

Length x Width x Depth of water pumped = Area in cubic feet.

If it is circular:

 $3.14 (\Pi) \times Radius = Area$

Radius = ½ of the diameter

This will give you the area in cubic feet; remember to work in feet not inches.

- 2. Measure the depth to the wastewater when the pump starts. Start a stopwatch. When the pump stops stop, the stopwatch and record the time pumped.
- 3. Measure the depth of the wastewater at the depth the pump started. Note the time and re start the stopwatch. Measure the depth of the water when the pump stops, this is the draw down

depth. The fill time of the wet well needs to be timed and recorded.

To find the volume pumped:

Subtract the depth to wastewater when the pumps turned on from the depth to the wastewater when the pumps turned off. This is the drawdown depth of wastewater. Calculate the volume in cubiv feet using one of the above formulas.

To find gallons pumped, convert your measurements by multiplying cubic feet by 7.48 gallons/cubic feet.

1. First you will need to find the rate of flow into the wet well:

Flow = Volume/Time

The time to use is the time from when the pump turned off until it turned back on again. (The second stop watch reading)

- 2. Add the fill rate with the volume of the wet well. This is the total gallons pumped.
- 3. Divide the total gallons pumped by the minutes that the pump ran. Remember to convert the seconds in minutes by dividing the seconds by 60 seconds per minute. This converts seconds to minutes, then add this to the minutes.
- 4. Repeat this for each pump.





SDARWS Hosts Sustainable Management Workshops

By Steve Attema, SDARWS Training Specialist

In December 2014 SDARWS conducted three one-day workshops across the state to address sustainable management of rural and small systems. These workshops were designed to develop strategies within each system to deliver more efficient and higher quality services, improve long-term sustainability and increase resiliency, and using resources to make improvements. This was accomplished by evaluating ten key management area and focusing on their most pressing challenges first.

The workshops were held at The Lodge in Deadwood, Nicky's Restaurant in Madison, and the Tea Steak House Event Hall in Tea. Attendees included system managers, operations specialists, office managers, finance officers, board members and other system personnel. The diversity of the group provided unique prospectives on each of the management areas. Each workshop lasted approximately six hours which included a working lunch and could be counted as contact hours for those with operator certification.

The day started out with a introductions and a presentation of the workshop objectives. This led into a description of each of the ten key management areas:

- Product Quality
- Customer Satisfaction
- Employee and Leadership Development
- Operational Optimization
- Financial Viability
- Operational Resiliency
- Infrastructure Stability
- Community Sustainability and Economic Development
- Water Resource Adequacy
- Stakeholder Understanding and Support

With this detailed look at each of the key management areas the participants then did a self-assessment to rate themselves in each category. After a group discussion of the self-assessment the participants chose one area that was rated as low achievement and high priority to start defining how this area could be improved. The day wrapped up with a group discussion on the results of area improvements, a look at assistance opportunities in each area, and feedback session where the workshop was evaluated.

Initial feedback showed that the workshops were a success with many participants liking the approach to improve their systems.

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A 0.250 MG clear well needs to have chlorine added to a dosage of 2.5 mg/L, how many lbs of chlorine gas (100% purity) will be needed?

a. 2.36 lbs

b. 3.46 lbs

c. 4.85 lbs

d. 5.21 lbs

Specifications allow for a maximum of 0.5 gallons/ hr/1000 feet of leakage in a new water main during hydrostatic testing. What would be the maximum allowable leakage (in gph) for 1 mile of new water main?

a. 1.85 gph

b. 2.32 gph

c. 8.3 gph

d. 2.6 gph

3 You need to patch the street after fixing a leak, how many pounds of asphalt will be need to patch the street if the area excavated is 12 feet 3 inches wide, 120 feet 8 inches long and the finished asphalt depth 6 inches. Assume a 50% compaction for the asphalt and weighs 130lbs/ft3.

a. 1,478 lbs

b. 192,000 lbs

c. 73,900 lbs

d. 15,846 lbs

Your motor uses 30 KW of electrical power and has a water Hp of 35 Hp. What is the overall efficiency of the pump and motor?

a. 74%

b. 36%

c. 13%

d. 87%

5 In may your system pumped 847,000 gallons of water, you billed for 735,000 gallons of water, what is your % water loss?

13.2%

86.8%

18.8%

81.2%

The water treatment plant decides to coat the inside of their clearwell (top, bottom, and sides) with a new product to seal leaks. The product has to be applied at a rate of 5 gallons/250 square feet. The clearwell has a diameter of 130 feet and a depth to the ceiling of 14.5 feet. How many gallons of the sealant should be applied?

a. 129.8 gallons

b. 247.73 gallons

c. 649 gallons

d. 827.2 gallons

During hydrant flushing an operator flushes a 8 inch water main and achieves a flow of 800 gpm, what is the velocity of the water in the main during flushing?

a. 1.5 ft/sec

b. 2.8 ft/sec

c. 4.65 ft/sec

d. 5.2 ft/sec

The pressure reading on the pipe leaving the treatment plant is 72 psi, and the pressure reading in the pipe a distance of 4500 feet away is 64 psi, calculate the hydraulic grade of this portion of the distribution system.

a. 0.41%

b. 4.1%

c. 0.0041%

d. 41%

What would be the maximum thrust force expected on a hydrant installed on a 6" water main operating at 70 psi? Assume a surge allowance of 150% of system pressure.

a. 1782 lbs

b. 2144.8 lbs

c. 2564.2 lbs

d. 2967 lbs

If the soil around the hydrant in #9 has a bearing capacity of 2850 lbs/ft2. How many square feet of concrete thrust block will be required?

a. 1.0 sq. ft.

b. 3.0 sq. ft.

c. 4.5 sq. ft.

d. 6.0 sq. ft

Answer Key

(1) D 2) D 3) B 4) D 2) V (2) C 2) D 8) V (3) D (4) D (5) V

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PROPOSED NONPROFIT CORPORATION ACT LEGISLATION

Dennis N. Davis - Executive Director

South Dakota Rural Water is the only water and wastewater association in South Dakota to monitor legislation in both Pierre and Washington, DC. Margo Northrup of Riter, Rogers, Northrup and Wattier, LLC., is SDARWS's state registered lobbyist, as well as a Commissioner on the State Bar Association. She, along with your Association, monitors all bills affecting municipalities, rural water and wastewater systems. Margo can be found in Pierre during the entire session and is prepared to activate our legislative network on issues that affect our industry. She also compiles a weekly report on the bills that affect our members — and that in turn gets converted into our weekly "Ripples" legislative newsletter.

Oftentimes, there is a piece of legislation that comes forward which potentially affects our members – and lends itself to more scrutiny. Such a piece has already come forward in the early days of the 2015 SD Legislative Session – and it is the Proposed South Dakota Nonprofit Corporation Act Legislation.

Background

The current Nonprofit Corporation Act was enacted in 1965. Diverse types of nonprofits are governed under the Nonprofit Corporation Act, such as religious organizations, private and community foundations, health care organizations, educational institutions, homeowners associations, cooperatives, and the list goes on. Although many of our nonprofits have pushed to be at the forefront and leaders in industries, our nonprofit laws have not kept pace. There have been no major updates to our nonprofit laws in 50 years.

The proposed language in the bill is developed from the Third Edition of the Revised Model Nonprofit Corporation Act that was adopted by the America Bar Association in August of 2008. Most states have derived their nonprofit corporation laws from or are closely related to the various model legislation adopted by the American Bar Association. Domiciles that follow some version of the Model Nonprofit Corporation Act are generally viewed favorably as it provides for greater uniformity, richer sources of precedent, statutory interpretation and clarity of law. A prominent goal of the Third Edition of the Revised Model Nonprofit Corporation Act was to follow the Model Business Corporation Act to the extent possible; however, there are inherent differences that distinguish nonprofits from profits that necessitate distinctive treatment.

In 2010, a nonprofit law subcommittee of the Business Law Committee of the State Bar of South Dakota was assigned to analyze and modify the model legislation to tailor to the needs of South Dakota. After passing through the subcommittee and larger Business Law Committee, the proposed legislation was passed by the State Bar of South Dakota in June, 2014, to be



Margo Northrup, SDARWS Lobbyist

recommended for consideration by the South Dakota State Legislature.

Summary

The proposed legislation improves governance by updating the code to allow nonprofits to operate in the 21st century. The notice requirements are expanded in the proposed legislation to include multiple means of communication, including electronic communication. In contrast, current nonprofit laws only allow written notice in most circumstances. Meetings may occur by means of the Internet or other electronic communications technology so that members have the opportunity to read or hear the proceedings substantially concurrently with their occurrence, vote on matters submitted to the members, pose questions, and make comments.

Where possible, provisions are updated to mirror the for-profit sections of SDCL. For example, the proposed model legislation addresses whether or not a record of incorporation filed with the Secretary of State must be in English. Like many other provisions, this issue is not addressed in the current nonprofit law, but the issue is addressed within the for-profit sections of SDCL. Matters relating to the setting of a record date determining the members entitled to vote, addressing how directors conduct meetings,

...continued on page 30

actions by ballots, and the formation of voting agreements are all provisions addressed in our for-profit sections and now addressed in the proposed legislation. The current Nonprofit Corporation Act is simply devoid in certain areas. The current law does not address nonprofit domestication, conversion, derivative proceedings, membership exchanges, or transition provisions, all of which are addressed in the proposed legislation and are currently addressed in our for-profit sections of SDCL. The other component to help place nonprofits on a more equal footing with for-profits is to amend SDCL § 37-11-1 so that nonprofits are allowed the opportunity to file a fictitious name statement to help protect their proprietary interests.

With regard to articles of incorporation and bylaws, few changes have been made. The proposed legislation allows one or more persons to act as incorporators of a nonprofit to align with the for-profit sections. The proposed legislation has fewer mandatory requirements to be set forth in the articles of incorporation than currently exist. However, the proposed legislation has additional optional provisions that nonprofits may select to set forth in the articles of incorporation. Likewise, the proposed legislation is similar to the existing law that mandates the corporation to adopt bylaws and the bylaws may contain any provision for managing the activities and regulating the affairs of the corporation that is not inconsistent with law or the articles of incorporation. The filing, service and copying fees remain similar to the current law. Another area that remains similar is liability protection afforded to nonprofits. Significantly, the current law does provide reduced liability exposure in comparison to the Third Edition of the Revised Model Nonprofit Corporation Act. Accordingly, the current law pertaining to liability is maintained in the proposed legislation so there is no liability change for nonprofits with regard to such statutes.

The general powers granted to a nonprofit under the current codified law were not changed by the proposed legislation and a few more powers were added for nonprofits. One difference is that the powers granted by the model legislation are limited by any contrary language in the articles of incorporation or bylaws, whereas the general powers granted under current law are generally not constrained by the articles or the bylaws. The proposed legislation gives great deference to the articles of incorporation and bylaws in determining the right to vote, voting procedures, and quorum requirements.

Because nonprofits may supersede the general provisions of the model legislation, they have great latitude to individually shape their governing requirements as they see fit and not put undue burden on nonprofit organizations. On the whole, the proposed legislation is more comprehensive to help improve governance by allowing nonprofits to operate in the 21st century and by reducing uncertainty and the inconsistency that exists with the absence of law.





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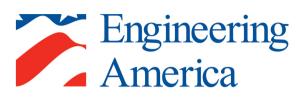
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> Doug C. Rovang, P.E. Senior Civil Engineer Rochester Public Utilities





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