SDARWS
South Dakota Association of Rural Water Systems

Quality On Tap!

April 2024 | Volume 19, Issue 4

PURPOSE OF AN ANNUAL MEETING

EFFECTS OF ZEBRA MUSSELS ON RURAL WATER SYSTEMS

RURAL WATER EXPO 2024

APRIL 24-25, 2024

BEST WESTERN RAMKOTA HOTEL & CONFERENCE CENTER
RAPID CITY, SOUTH DAKOTA

This 1½ day event includes presentations and features exhibit displays

CONTACT HOURS • DOOR PRIZES
LUNCH PROVIDED ON DAY ONE

REGISTER ONLINE!
sdarws.com/EXPO

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Apprentice Coordinator


ALLEN KOCMICH
Circuit Rider


WYATT HIX
Circuit Rider


JIM VAVRA
Circuit Rider


DANNY AYERS
Wastewater Tech.


BLAINE EILTS
Wastewater Tech.

Rural Water EXPO -April 24-25, 2024

Make plans to attend the 2024 EXPO at the Best Western Ramkota Hotel & Convention Center in Rapid City, SD. Registration is available at **sdarws.com/EXPO**

The EXPO is open to all water and wastewater utility staff, board/council members, engineers, State and Federal employees. The training will consist of twenty presentations, 30 minutes each, thus allocating ten contact hours for those individuals who are licensed operations specialists. Along with the training sessions, the EXPO will showcase many of our industry's manufacturer and supplier leaders. These professional companies will be set up in the main EXPO training center for attendee easy access and to provide answers to those pressing questions. Many will be displaying the recent advances in technology our industry has witnessed over the past several years.

This year's EXPO will kick off at 8:00 am Wednesday and conclude at noon on Thursday, with lunch provided on the first day. New for 2024 is a vendor reception on Wednesday evening from 5:00 - 7:00 PM in the Exhibit Hall. Join us for free beer, snacks, and a chance to win a TV! Registration is $125, and SDARWS is able to bill for this fee after the conference. **Please pre-register by visiting our website at: sdarws.com/EXPO. More information can be found on page 4.**

SOUTH DAKOTA RURAL WATER WARRIORS
FISHING TOURNAMENT

REGISTER ONLINE AT SDARWS.COM/FISHING

RURAL WATER FISHING TOURNAMENT

May 3-4, 2024
Outpost Lodge on Cow Creek Bay

REGISTRATION: $150 for a 3-person Team. Includes a meal following the tournament. $1,000 Payout for 1st Place!

For more information, contact Mike Moeller, SDARWS Tournament Chair at 605-270-4989 or email mmoeller@sdarws.com

SOUTH DAKOTA ASSOCIATION OF RURAL WATER SYSTEMS • 203 W. Center Street • P.O. Box 287, Madison, SD 57042 • 605-556-7219 • email: info@sdarws.com • www.sdarws.com

RURAL WATER EXPO 2024

APRIL 24-25, 2024

BEST WESTERN RAMKOTA HOTEL & CONFERENCE CENTER RAPID CITY, SOUTH DAKOTA




Contact Hours • Door Prizes • Lunch provided on Day One

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ATTENDEE REGISTRATION

$125 – In-Person Registration

Includes 10 contact hours and lunch on Day 1

ROOM BLOCK

Best Western Ramkota Hotel
2111 N Lacrosse Street
Rapid City, SD 57701
605-343-8550

AGENDA COMING SOON!

For more information visit
sdarws.com/EXPO

SCAN HERE FOR MORE INFORMATION

REGISTER ONLINE: sdarws.com/EXPO

OPERATOR CERTIFICATION TRAINING AND EXAMS

Register for training classes online at: web.sdarws.com/events

Basic Water Treatment	Aberdeen - Dakota Events Center	March 5-7, 2024
OpCert Exam	Aberdeen - Dakota Events Center	March 7, 2024
Intermediate Water Treatment	Sioux Falls - Hilton Garden Inn SW	March 19-21
OpCert Exam	Sioux Falls - Hilton Garden Inn SW	March 21, 2024
Cross Connection Control and Backflow Prevention	Sioux Falls - Water Treatment Plant	April 10, 2024
Water Distribution	Mitchell - Highlands Conference Center	April 16-18, 2024
OpCert Exam	Mitchell - Highlands Conference Center	April 18, 2024
Small Water Treatment Workshop	Rapid City - Ramkota	April 23, 2024
Basic Wastewater Treatment	Watertown - Ramkota	May 7-9, 2024
OpCert Exam	Watertown - Ramkota	May 9, 2024
Advanced Wastewater Treatment	Sioux Falls - Hilton Garden Inn	May 21-23, 2024
OpCert Exam	Sioux Falls - Hilton Garden Inn	May 23, 2024
Stabilization Pond Workshop	Huron Events Center	June 6, 2024

Classes start at 8:00 AM Tuesday through Thursday.
Classes end at approximately 4:30 PM on Tuesday and Wednesday, and noon on Thursday.
One-day Workshops start at 8:00 AM and end at 4:30 PM.

EXAM INFORMATION

All exams cost $60.00 and must be taken "in-person."

Any exam can be taken at an exam session. You can take more than one exam at an exam session; however, the exam session remains at three hours long.

All exam applications are due no later than two weeks prior to the exam date to DANR. Questions regarding exams can be directed to Tammie Hill with DANR at 605-773-3577.

DANR OPERATOR CERTIFICATION WEBSITE

danr.sd.gov/OfficeOfWater/OperatorCert/default.aspx

The Stabilization Pond class deals strictly with ponds/lagoons and is the best class for preparing to take the Small WW Exam. The Basic WW Treatment class deals with all types of wastewater treatment other than ponds/lagoons and is the best class for preparing to take the Class I WW Treatment exam. Small Systems that use ponds/lagoons for treatment can come into compliance with the Operator Certification Law by passing either the Small WW System exam or the Class I WW Treatment Exam.

Water systems serving less than 500 individuals and use wells as its source can come into compliance by passing the Small Water Treatment exam. Larger systems must pass the Class I Water Treatment exam or higher depending on the facility classification.

STUDY MATERIALS

DANR has water exam study material to lend to operators. These include manuals from California State:

- *Water Distribution System Operation and Maintenance*
- *Small Water System Operation and Maintenance*

TRAINING CLASSES

Certification Training Classes are conducted by the South Dakota Association of Rural Water Systems. **These classes are presented at no charge.** Certified Operators can obtain contact hours for attending all of the above classes.

For more information on certification training classes, please contact Bill Thorson at 605-556-7219 (office) or 605-201-0170 (cell).

ZEBRA MUSSELS INVADE SOUTH DAKOTA WATERWAYS

Tanner Davis, Aquatic Invasive Species Coordinator
South Dakota Game, Fish and Parks

Zebra mussels are a small invasive mollusk (clam) that originated in Eastern Europe and first arrived in the U.S. in the mid-1980s. Zebra mussels were first found in the Lake St. Clair near Detroit, MI and since have spread throughout the Mississippi River drainage (Missouri, Arkansas, Tennessee, and Ohio Rivers). Populations also exist in the Western U.S.. Adults range in size, anywhere between ½ inch to 2 inches and can rapidly spread under the right conditions. Larval zebra mussels, called veligers, can spread by water transfer and veligers are so small they are invisible to the naked eye which adds to their invasiveness and ease of incidental transfer. Adults will attach to hardy surfaces and vegetation and for this reason, South Dakota Game, Fish & Parks enforces recreationalists to stay Clean. Drain. Dry. between waterbodies to help slow the spread. Always make sure to pull all plugs on your watercraft and don't transport any water, vegetation, mud or other organic matter from one body of water to the next. Below are the list of impacted waters in South Dakota.

History of initial positive detections of Zebra Mussel

2014 **Lewis and Clark Lake**

2015 **Missouri River below Gavins Point Dam**

2015 **McCook Lake**

2018 **Lake Yankton**

2019 **Lakes Sharpe and Francis Case**

2020 **Lake Cochrane, Kampeska, Pickerel and Dahme Quarry**

2021 **Lake Mitchell**

2022 **Enemy Swim, Blue Dog, Clear Lake, South Rush and Pactola Reservoir**

2023 **James River/Sand Lake Refuge, Roy Lake, Big Sioux River, Bigstone Lake, Lake Oahe**

Please visit **sdleastwanted.sd.gov** for more information regarding AIS regulations, news/updates, maps, frequently asked questions, media gallery of AIS, and to report any potential AIS you may have found on our citizen monitoring page.

Photo By: Sam Stukel

THE EFFECTS OF ZEBRA MUSSELS ON RURAL WATER SYSTEMS

Zebra mussels (Dreissena polymorpha) 1st discovered in South Dakota in Lewis & Clark Reservoir in 2015 are invasive freshwater mollusks that have spread rapidly across various water bodies. Zebra mussels have been found in many bodies of water in South Dakota, such as the Missouri River, Big Sioux River, Blue Dog Lake, Lake Mitchell, Sand Lake National Refuge on the Jim River, Pactola Lake, and many more. Zebra mussels are small, fingernail-sized mollusks with distinctive zigzag stripes on their shells. They are highly adaptable and can thrive in a wide range of environmental conditions, making them formidable invaders. Zebra mussels are filter feeders, extracting phytoplankton and other particles from the water column, which can lead to competition with native species for resources. The spread of zebra mussels is facilitated by their ability to attach to various structures, including boats, docks, and water intake structures. Once established in a water body, they reproduce prolifically, with each female capable of producing hundreds of thousands of eggs per year. Their larvae, called veligers, can be transported over long distances by water currents.

Zebra mussels have had profound ecological impacts on invaded ecosystems. Their dense colonies can outcompete native species for food and space, leading to declines in native mussel populations. The increased water clarity resulting from their filter feeding can promote the growth of harmful algae, negatively affecting fish populations and disrupting food webs.

The economic consequences of zebra mussel invasions are significant. They can clog water intake pipes, leading to increased maintenance costs for industries and municipalities. Furthermore, the decline in native fisheries and alteration of ecosystems can have long-lasting economic repercussions.

Several strategies have been employed to control and manage zebra mussel populations. Physical methods, such as the use of barriers and underwater mats, aim to prevent the attachment of zebra mussels to structures. Chemical methods, including the use of molluscicides, have been employed, but their environmental impact raises concerns.

These infestations can cause significant problems in water systems, including clogging water intake pipes. Chemical treatment is one of the methods used to control zebra mussels in water intakes. Several chemicals can be effective in treating water to prevent or mitigate zebra mussel infestations. It's important to note that chemical treatment should be done carefully, considering potential environmental impacts and the safety of other aquatic life.

Here are some chemicals commonly used for the chemical treatment of water intakes for zebra mussels:

CHLORINE: Chlorine is a powerful disinfectant and is often used for controlling zebra mussels. It can be applied as a gas or in various chemical formulations. However, its use requires careful monitoring to prevent harm to non-target organisms and ecosystems.

QUATERNARY AMMONIUM COMPOUNDS (QACS): QACs, such as polyquat or benzalkonium chloride, are chemicals that disrupt the membranes of zebra mussels, leading to their mortality. These compounds are often used as part of a rotation strategy to prevent resistance.

COPPER-BASED COMPOUNDS: Copper is toxic to zebra mussels and is commonly used in antifouling coatings on boat hulls and water pump intake screens. Copper sulfate is a chemical option for treating water intakes, but its use needs to be carefully managed due to potential environmental concerns.

POTASSIUM-BASED COMPOUNDS: Potassium-based chemicals, such as potassium chloride, can be effective against zebra mussels.

PEROXIDE-BASED COMPOUNDS: Hydrogen peroxide is an oxidizing agent that can be used to control zebra mussels. It is generally considered less harmful to the environment than some other chemicals, but its effectiveness may vary.

It's crucial to consult with experts, environmental agencies, and follow state regulations before implementing any chemical treatment. Additionally, regular monitoring is essential to assess the effectiveness of the treatment and minimize potential negative impacts on non-target species and the overall ecosystem. Integrated pest management approaches, combining chemical treatment with physical methods and other control strategies, may provide more sustainable solutions for zebra mussel control in water intakes.

According to Matt Hansen of Hawkins Chemical. "Earthtec QZ is what the majority of water plants/dams are using on the Missouri River. It is the only approved molluscicide in the state of South Dakota and on the Missouri River. It is also NSF 60 certified, and EPA registered. Plants are feeding 1 PPM dose using peristaltic/ diaphragm pumps on manual mode or connected to SCADA. Plants have been feeding out of drums/totes and bulk tanks. Tubing is usually run by a diver from the intake building, down to the intake through PVC pipe to keep weighted to the ground in front of the intake screen. Based on management plan, some plants feed EarthTec QZ year around, turning down the dose in the wintertime to .5 PPM for a maintenance dose. When the water temp drops below 40 degrees Fahrenheit, it discourages colonization."

Zebra mussels cling to an intake valve from a water system in South Dakota.

THE PURPOSE OF AN ANNUAL MEETING

Annual meetings are pivotal for Rural Water Systems. These meetings provide the consumers with a time to come together and listen to the system's year in review, hear about future plans and projects, and help make important decisions. These meetings offer transparency, accountability, and communication between the Board of Directors and the customers. The purpose of the meeting is to show financial transparency, strategic decisions, regulatory compliance, and the election of board members.

At the meeting, financial statements for the previous year are presented. This shows the consumers financial responsibility and shows the financial health of the system. Many of the rural water systems have their Auditor, Treasurer or Accountant give a report at the meeting on the financial statements and go over the overall financial status of the water system.

Strategic discussions are also reported on, which can include plans for upcoming projects and potential challenges that may arise. Many times, the system engineer will give updates on the status of the distribution system, current or ongoing construction projects. This keeps the consumers well informed and can let them ask any questions about the direction or goals of the system. This open proactive approach allows for timely investment in the water system, reducing the risk of unexpected breakdowns and service disruptions.

Members of the rural water systems will have the opportunity to vote on the election of board members during the annual meeting. This democratic process allows them to have a say in the governance of the company and ensures leadership aligns with their interests.

Regulation compliance will also be presented at these meetings. These regulations are crucial for the functioning of the system. These will be reviewed, discussed and the consumers will be shown the requirements needed to keep health and safety standards.

Annual meetings are the cornerstone of effective governance and sustainable operations for the rural water system. These gatherings, whether it be an open house, an afternoon or evening meeting in a district of a water system, or a drive through as some had during the pandemic, are mandated by the by-laws of the system. Every water system's annual meeting may look different, but they facilitate community engagement, communication, planning, compliance, and democratic elections of the leaders. By actively participating in annual meetings, you can contribute to the success and longevity of your water systems, ensuring access to clean and safe water for generations to come.

RAPID VALLEY SANITARY DISTRICT/WATER SERVICE

Neslted in the Black Hills of South Dakota, Rapid Valley Sanitary District–Water Service stands as a testament to community vision and dedication. Established in 1962 by local citizens, this organization was born out of the necessity for a safe drinking water supply in an era where many relied on shallow wells.

Early Challenges and Innovations:

The journey began with a humble start, marked by challenges. Initial attempts at well construction faced setbacks due to poor production and high radium content. However, undeterred, the team persevered. In 1990, an underground gallery was installed along Rapid Creek to harness surface water, signaling a commitment to innovation.

The Merger of 1994:

A pivotal moment arrived in 1994 when the Sanitary District and Water Service merged, forming a quasi-governmental entity – Rapid Valley Sanitary District–Water Service. This strategic union aimed at optimizing customer service and operational efficiency.

Infrastructure Growth and Technological Advancements:

Over the years, Rapid Valley has evolved with the times. Infrastructure upgrades, new water and sewer main projects, and the addition of microfiltration units showcased a commitment to staying ahead in the ever-changing water industry.

In 2010, the addition of a third microfiltration unit, along with a Trojan ultra-violet system, catapulted the treatment capacity from two to three million gallons per day. This not only exceeded Environmental Protection Agency standards but also positioned Rapid Valley to serve neighboring districts.

Looking to the Future:

Rapid Valley remains a beacon of forward thinking. In 2009, a 1.85 million-gallon tank was added, and in 2013, a .256 million-gallon Aqua store tank bolstered storage capacity to 3.61 million gallons. Annual project plans ensure continuous improvements, with a booster station added in 2009 for future expansion.

Looking toward sustainability, Rapid Valley is pilot testing ceramic membranes for water treatment. Early results suggest increased production capacity, higher recovery rates, and lower operating costs, paving the way for the long-term success of water treatment initiatives.

Community Collaboration:

Serving approximately 3,900 connections, Rapid Valley is not just a water provider but a vital community partner. Collaborating with the expanding Rapid City, the district emphasizes high-quality service and anticipates the needs of its residents.

For over 60 years, Rapid Valley Sanitary District–Water Service has been a guardian of water quality, adapting to challenges and embracing innovations. As they continue to pilot test new technologies and plan for the future, Rapid Valley remains at the forefront of the water industry, ensuring safe and sustainable water for generations to come.

RAPID VALLEY
SANITARY DISTRICT
WATER-SERVICE

DIRECTORS:

Chairman – Andy Fitzgerald

Vice Chairman – Bob Phillips

Secretary – Connie Olson

Treasurer – Diana Nelson

Director – Shirley Haines

Director – Jennifer Battles

Director – Carrie Wheeler

Director – Eric Krebs

STAFF:

General Manager – Rusty Schmidt

Field Operations Supervisor – David Flint

Office Team Lead – Sara Bender

Administrative Clerk – Kathy Graff

Administrative Clerk – Samantha Faatz

Service Technician – Mike Chrobak

Service Technician – Nate Broom

Service Technician – Tyler Volk

Service Technician – Garret Whipple

STATISTICS:

Hookups: 3,771

Miles of Pipeline: 70

Water Source: Rapid Creek,
Interconnection with Rapid City

Counties Served: Pennington

RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

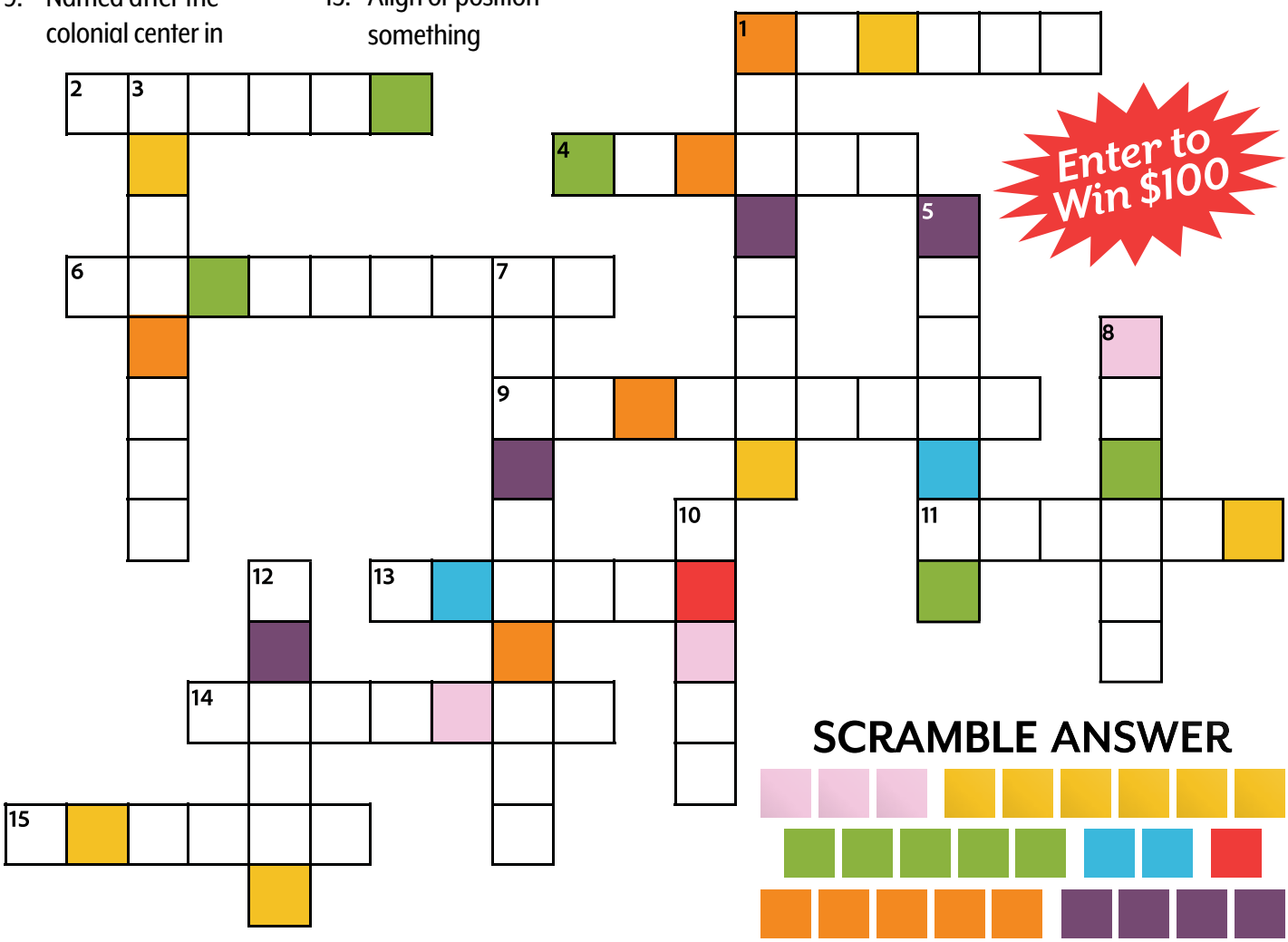
SMALL TOWNS OF SOUTH DAKOTA

Across

1. Pinnacle or peak
2. Thieves
4. Beverly Cleary heroine
6. British director of classic thrillers
9. Named after the colonial center in Virgina
11. Named after a much larger city in Texas
13. Named after Austrian capitol
14. Stackable canned chip
15. Align or position something

Down

1. Highlander country
3. Dependence on or trust in someone or something
5. Similar name to Black Panther kingdom
7. German head of government
8. Chief manservant
10. George Michael Song
12. Ring around the sun



SCRAMBLE ANSWER

RULES: Use the colored squares in the puzzle to solve the word scramble above. Call your Rural Water System (See page 2 for contact information) or **enter online at www.sdarws.com/crossword.html** with the correct phrase by April 15, 2024 to be entered into the $100 drawing.

Only one entry allowed per address/household. You must be a member of a participating rural water system to be eligible for the prize. Your information will only be used to notify the winner, and will not be shared or sold.

Congratulations to Don & Lura Kirkpatric with West River/Lyman-Jones who had the correct phrase of "Everything Comes Back to You" for January 2024.

AQUATIC INSECTS

Are you ready to explore the amazing aquatic insects that call South Dakota home? Grab your virtual magnifying glass, and let's dive into the fascinating world beneath the surface of the state's ponds, rivers, and streams!

1. WATER STRIDERS - THE POND SKATERS:

Imagine gliding effortlessly on the water's surface like a tiny superhero. That's exactly what water striders do! These insects have long legs that help them skate on ponds and streams. They use the surface tension of the water to stay on top and even catch prey like mosquitoes with lightning-fast reflexes.

2. DRAGONFLIES - THE AERIAL ACROBATS:

Meet the daredevils of the insect world - dragonflies! These colorful acrobats zip and zoom through the air, performing incredible mid-air stunts. But did you know they spend most of their life underwater as nymphs before transforming into the dazzling flyers we see above the water?

3. DAMSELFLIES - GRACEFUL FLYERS OF THE WATERWAYS:

Damselflies are like the ballerinas of the insect world. With their delicate bodies and graceful flight, these colorful insects add a touch of beauty to South Dakota's ponds and marshes. They spend their youth as nimble nymphs in the water, and when ready, transform into stunning aerial acrobats.

4. MAYFLIES - THE SHORT-LIVED BEAUTIES:

Mayflies might not have a long life, but they sure know how to make it count! These delicate insects are famous for their short adult stage, sometimes lasting only a day or two. They dance in the air, showcasing their stunning colors before leaving their eggs in the water, starting the cycle all over again.

5. CADDISFLIES - NATURE'S ENGINEERS:

Caddisfly larvae are like little architects of the water. They collect tiny pebbles, bits of plants, and even pieces of wood to create protective cases around themselves. These cases act like underwater homes, keeping them safe until they transform into graceful adults.

6. BACKSWIMMERS - THE UPSIDE-DOWN SWIMMERS:

Backswimmers are like the gymnasts of the insect world. They swim upside-down, using their long legs to paddle through the water. These clever insects are skilled hunters, preying on other smaller aquatic creatures. Watch out for their shiny bodies as they zip around in search of their next meal!

WHY ARE THEY IMPORTANT?

Aquatic macroinvertebrates are like water detectives. Scientists use them to investigate the health of lakes and streams. Different types of these tiny creatures can tolerate various conditions, such as water temperature and pollution levels. By studying which macroinvertebrates are present, scientists can determine if the water is clean and healthy or if there might be some issues that need attention.

These little creatures are also the favorite snacks of fish! Fish rely on aquatic macroinvertebrates as an important part of their diet. So, not only do these tiny heroes keep our waters in check, but they also provide a tasty treat for our finned friends.

Next time you're near a stream or pond in South Dakota, take a moment to appreciate the incredible world of aquatic macroinvertebrates. They may be small, but they play a big role in keeping our waterways healthy and vibrant. Happy exploring, young scientists!

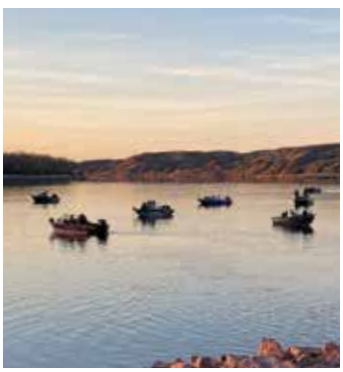
SDARWS Conferences & Events

Rural Water EXPO | April 24-25, 2024

The EXPO is open to all water and wastewater utility staff, board/council members, engineers, State and Federal employees. The training will consist of 13 presentations, 30 minutes each, thus allocating ten contact hours for those individuals who are licensed operations specialists. Along with the training sessions, the EXPO will showcase many of our industry's manufacturer and supplier leaders. Many will be displaying the recent advances in technology our industry has witnessed over the past several years.

To learn more, visit sdarws.com/EXPO or email expo@sdarws.com

Rapid City Ramkota Hotel & Convention Center
2111 N Lacrosse Street • Rapid City, SD • 605-343-8550



Rural Water Fishing Tourney | May 3-4, 2024

The Annual Rural Water Warriors Fishing Tournament takes place at the Outpost Lodge on Cow Creek Bay in 2024. Teams consist of 2-3 people with at least one person who is a current water/wastewater, associate member or corporate partner of the SDARWS. This tournament is limited to 40 teams. There is an eight fish maximum per boat with the largest seven fish weighed, and all South Dakota fishing regulations must be followed. A mandatory rules meeting is held at 8:00pm the night before the tournament.

For more information, visit sdarws.com/fishing or email fishing@sdarws.com

Outpost Lodge on Cow Creek Bay
Cow Creek Recreational Area, 28229 Cow Creek Rd. • Pierre, SD • 605-264-5450

Rural Water Open Golf Tourney | July 2024

The Annual Rural Water Open will take place in Sioux Falls. This tournament is open to Utility Members, Associate Members, and Corporate Partners of SDARWS. Registration is $100/player and includes golf, cart, lunch, and awards.

For more information, visit sdarws.com/golf or email golf@sdarws.com

Trap Shoot | Fall 2024

The Second Annual Rural Water Trap Shoot will take place at the Crooks Gun Club. This tournament is open to Utility Members, Associate Members, and Corporate Partners of SDARWS. Registration is $100/player or $150 to pick your partner. Includes shells and dinner. **For more information, visit sdarws.com/trap or email ggraverson@sdarws.com**

Leadership Seminar | November 13-14, 2024

This seminar is geared towards Rural Water System Directors and covers a gamut of topics pertaining to rural water boards and system leadership.

For more information, visit sdarws.com/leadership or email jcorbin@sdarws.com

Pierre Ramkota Hotel & Convention Center
920 W. Sioux Ave. • Pierre, SD • 605-224-6877

Annual Technical Conference | January 14-16, 2025

The ATC is the annual conference of the South Dakota Association of Rural Water Systems, and is the largest water/wastewater conference in South Dakota. This event is designed to bring together water and wastewater utility systems – both large and small, municipal and rural – for sessions in operations, management, boardsmanship and governance. This conference is held every year during the first week of the South Dakota Legislative session in Pierre, SD and hosts over 500 attendees.

To learn more, visit sdarws.com/ATC or email atc@sdarws.com

Pierre Ramkota Hotel & Convention Center
920 W Sioux Ave. • Pierre, SD • 605-224-6877

FROM THE EXECUTIVE DIRECTOR

Kurt Pfeifle, Executive Director
South Dakota Association of Rural Water Systems

FAREWELL AND FORWARD: REFLECTING ON A REWARDING JOURNEY WITH SDARWS

As I approach my final day at the South Dakota Association of Rural Water Systems (SDARWS) on April 15, 2024, I am engulfed in a whirlwind of emotions – a blend of excitement and sadness. Today, I announce my retirement, marking the end of a fulfilling chapter in my life that has spanned over six years as your Executive Director.

Looking back, the journey has been nothing short of extraordinary. From my early days in the late '80s and early '90s as manager of West River/Lyman-Jones Rural Water through the twenty-five years with Mid-Dakota Rural Water System to the culminating six years here at SDARWS, it's been a remarkable ride. Over these 37 years in the rural water industry, I've been fortunate to lead, learn, and grow alongside some of the most dedicated teams and organizations. Each has left an indelible mark on my professional and personal life, imparting invaluable life and leadership lessons.

My parents once told me, "If you find a career that you love, then you'll never work a day in your life." This adage has been the story of my career. More than a profession, rural water has been a passion, offering me a nurturing and accepting community. It has been my utmost pleasure to serve in this sector, and if given a chance to relive my career, I wouldn't alter a single step of this journey.

As I prepare to step away, I am heartened to see the SDARWS board managing a seamless leadership transition. The succession wheels are turning, and I am confident that the future of SDARWS is secure and ready to continue as a model for rural water state associations nationwide.

Reflecting on my tenure, I am proud to have been part of an era of significant growth and recognition for SDARWS. We've expanded from a team of 12 with a budget under $2 million to a robust staff of 16 (soon to be 18) and a budget of $3 million. This growth is a testament to our collective effort to enhance training programs and service offerings across South Dakota. Our achievements have been acknowledged by the National Rural Water Association (NRWA), earning national awards for excellence in five of the last six years. This success, I firmly believe, is not solely my doing but a result of the exceptional team I had the privilege to work with. Their hard work, intelligence, and collaborative spirit are unparalleled.

As I step into retirement, I hope to maintain a connection with the rural water community. I trust that new opportunities will emerge, allowing me to continue contributing to this industry I hold so dear.

Lastly, I must express my deepest gratitude to my wife, Laurie. She has been my rock, my unwavering supporter through the peaks and valleys of this journey. Her encouragement, understanding, and forgiveness during challenging times have been the backbone of my ability to pursue and thrive in this field.

In closing, I look forward to the paths our lives will take and hope they intersect again. The rural water community is not just a professional network; it's a family. I cherish the experiences, the friendships, and the lessons learned. Thank you all for being a part of my story and for the unforgettable years at SDARWS. As I turn this page, I carry with me a treasure trove of memories and the satisfaction of having contributed to a cause so close to my heart.

Till we meet again,

Kurt Pfeifle

P.O. Box 287
Madison, SD 57042
www.sdarws.com
605-556-7219

WATER MATTERS

HOW WATERFALLS WORK

According to the dictionary, a waterfall is "a cascade of water falling from a height, formed when a river or stream flows over a precipice or steep incline." Such a dry, academic description might well provide a workable technical definition, but it does little to convey the beauty of such features that have drawn the attention of people for ages. Waterfalls, both large and small, are the focal points of many national, state and local parks and scenic areas, ranging from the massive Niagara Falls along the St. Lawrence River to the modest Minnewissa Falls at the Pipestone National Monument 50 miles northeast of Sioux Falls.

In many cases, waterfalls form when fast-moving water passes over hard, resistant rock that transitions into softer, more easily eroded material. The harder capping rock is preserved (or eroded much more slowly), while the softer rock is quickly worn away. As a result, a step (geologists call it a nick point) develops in the river or stream, over which the water "falls." Over time, the harder rock will also be eroded, and the waterfall moves slowly upstream. Chunks of the more resistant cap rock are often visible at the base of the waterfall. Roughlock Falls and Spearfish Falls along Little Spearfish Creek in the Black Hills are two good South Dakota examples of this type.

In other cases, the ledge over which the water "falls" is the result of a break in otherwise fairly uniform rock. Over millions of years, forces within the earth have created faults and fractures in the Sioux Quartzite, which is found across parts of southeastern South Dakota. These breaks have left behind a fairly irregular surface on the quartzite. When modern day rivers and streams flow across this surface, waterfalls and cascades develop where there are sharp transitions. The Falls of the Big Sioux River are an example, and led to the development of our states largest community. Rock Rapids, Iowa, got its name in a similar manner.

Next time you come across a waterfall, see if you can figure out just why it is there, but only after admiring what is taking place.

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EAST DAKOTA WATER DEVELOPMENT DISTRICT

132B Airport Avenue
Brookings, SD 57006
605-688-6741
eastdakota.org