West River/Lyman-Jones
*Rural Water Systems Inc.*

# Quality On Tap!

April 2025 | Volume 20, Issue 4

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**CHECK OUT OUR NEW WEBSITE:**

**WRLJ.COM**

# MANAGER'S REPORT

**Jake Fitzgerald**
**Manager, West River/Lyman-Jones RWS**

Welcome to this edition of *WR/LJ Quality on Tap*, where we share updates and important information about our work to ensure a safe and reliable water supply for the rural areas and communities we serve.

Last year was busy as we wrapped up the construction of several projects, including two ground storage reservoirs, 15 miles of pipeline, and 51 new user add-ons. While it is satisfying to complete needed projects, water projects never truly end. Our next area of focus is the large rural area north of Philip, the Elbon service area. The water needs in this area have grown exponentially over the past several years, mostly due to agricultural demands. The existing Elbon Water Tower, located 15 miles north of Philip, has a capacity of 100,000 gallons. Over the past five years, peak flows in this service area have been pushing 500,000 gallons per day during the summer months. WR/LJ is working with our engineering team on a project to construct a new water tower with a capacity of 500,000 gallons. We are also in the planning stages of an improvement project that will include eight miles of 8-inch pipeline, a pump station, and a 200,000 ground storage reservoir in the northeastern area of Haakon County.

WR/LJ will be working with DGR Engineering on a comprehensive rate study this year. A water rate study is an essential analysis to determine appropriate water rates and ensure the financial sustainability of our water system. Many factors are considered, including operating costs, debt obligations, long and short-term planning of capital improvement projects, state and federal regulatory compliance, ratepayer equity and fairness, water conservation, future challenges, etc.

As I've mentioned in previous newsletters, the Environmental Protection Agency (EPA) requires all water systems nationwide to verify the pipeline material entering the residences they serve. We appreciate our members who have voluntarily shared photographs and information about the pipeline entering your home. WR/LJ still has a lot of work to do to verify the privately owned service lines that are currently listed as "unknown" material. If you haven't provided information to confirm your service line material, please contact our office at 605-669-2931 and our staff will assist.

Thank you for your continued trust in WR/LJ. Your membership is vital to our success, and we look forward to serving you.

West River/ Lyman-Jones Rural Water Systems, Inc.
MNI WICONI WATER SUPPLY PROJECT

## BOARD OF DIRECTORS

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## PHILIP FIELD OFFICE

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**Philip, SD 57567**

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Eddie Dartt..... O & M
John Kramer..... O & M
Nick Konst ..... O & M

## 2024 WR/LJ Audit

Casey Peterson and Associates of Rapid City, SD were in Murdo on January 21st and 22nd to perform the 2024 audit of financial records. Pictured from left to right are Matt Mickley, Caroline Mulder, and Kim Mattson.

The audit provides management and the Board of Directors an independent opinion as to the accuracy and accounting compliance of the financial statements. The auditors review financial records, payroll registers, disbursements and bank statements. The results of the audit were presented to the Board of Directors at a later date.

# FREE SERVICE

WR/LJ provides two free trips each calendar year to shut off/ turn on water at locations that will not be in use for a period of time. Please give advance notice by calling the main office in Murdo a couple days prior, so our field staff can make arrangements.

**In observance of the following holidays, WR/LJ Rural Water offices will be closed on the following days:**

**April 18, 2025 (afternoon)**
**Good Friday**

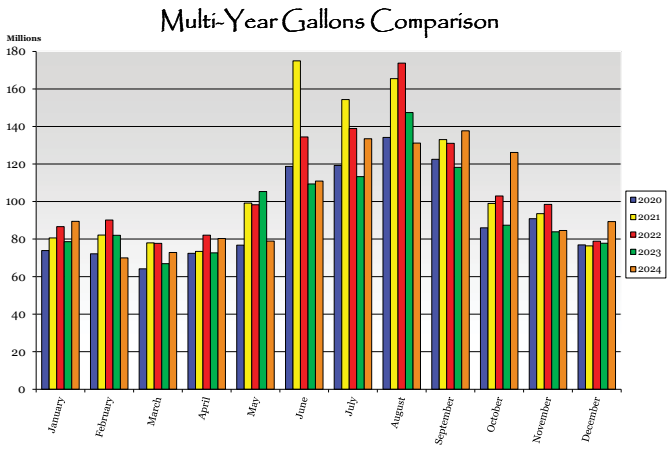
**May 26, 2025**
**Memorial Day**

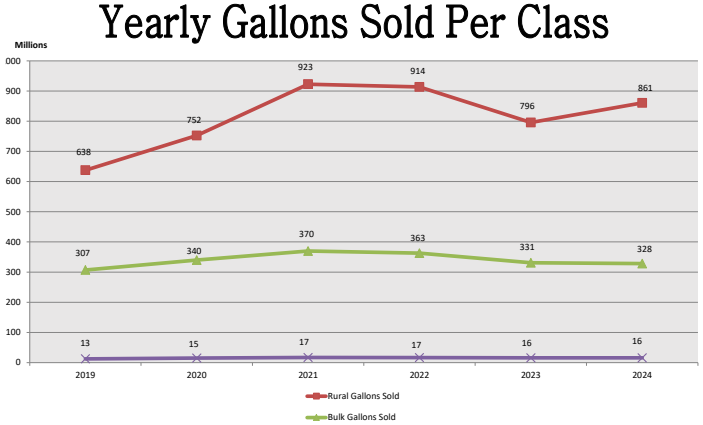
In case of an emergency,
please call the Murdo area at 530-0932
or the Philip area at 530-1136 for assistance.

# PAYMENT OPTIONS

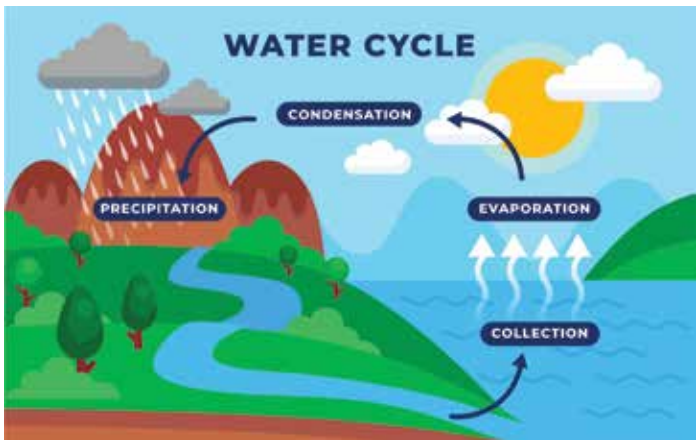
1. **Online Payment:** Go to **www.wrlj.com** (accepts Visa, MasterCard, Discover and Electronic Check)
2. **Pay-By-Phone:** Call 1-855-325-8898 to use our automated bill payment option.
3. **Pay-By-Phone:** Call 1-800-851-2349 and a WR/LJ customer representative will take your payment information over the phone.
4. **Electronic Direct Payment:** Your payment is automatically deducted from your checking or savings account on the 10th of each month.
5. **US Mail:** Mail payment along with the bottom portion of your bill.
6. **Pay-in-Person:** During regular business hours you may bring your payment to our office.
7. **24-Hour Drop Box:** Available at the Murdo office near the main entrance.

**For forms or more information on these payment options, please call 1-800-851-2349.**



# MAKE YOUR OWN MINI WATER CYCLE!




Have you ever wondered how water moves around our planet? The water cycle is nature's way of moving water through the air, land, and back again. You can create your very own mini water cycle at home with just a few simple materials!

## What You'll Need:

- A resealable plastic bag
- A permanent marker
- Water
- Blue food coloring (optional)
- Tape

## Step-by-Step Instructions:

1. **DRAW THE WATER CYCLE** – Use a permanent marker to draw a sun, clouds, and waves (to represent water) on the outside of the plastic bag.
2. **ADD WATER** – Pour about ¼ cup of water into the bag. If you like, add a drop of blue food coloring to make it easier to see.
3. **SEAL AND TAPE** – Zip the bag shut tightly and tape it to a sunny window.
4. **WATCH AND LEARN!** – Over time, you'll see water droplets form on the inside of the bag. This is condensation! As the water heats up, it evaporates, then cools and forms droplets, just like in the real water cycle.

## What's Happening?

**EVAPORATION** – The sun's warmth turns water into a gas called water vapor.

**CONDENSATION** – Water vapor cools and turns back into tiny liquid droplets (that's what you see inside the bag!).

**PRECIPITATION** – When the droplets get big enough, they fall as rain, just like in nature!

**COLLECTION** – The fallen rain gathers in bodies of water like lakes, rivers, and oceans, ready to start the cycle again.

Try this experiment and watch the water cycle happen right before your eyes. Science is amazing!

**Did You Know?** The water you drink today could be the same water a dinosaur drank millions of years ago! Thanks to the water cycle, water keeps moving through evaporation, condensation, and precipitation – never running out, just changing forms!

**Q: What did the cloud say to the raindrop?**
**A: You're falling for me!**

# BACKYARD POLLINATOR GARDENS

**There are many reasons why pollinators are important for our own health and why healthy soil and pollinators are connected. Pollinators help contribute to a diverse plant community which in-turn increases the health of your soil. Listed below are a few interesting facts about the need for pollinators.**

- **More than 100 crops in North America need pollinators.**
- **One out of every three bites of food is dependent on pollinators.**
- **More than 75% of flowering plants depend on pollinators.**
- **More than $200 billion per year impact on the global economy.**

## POLLINATORS

Bees are one of the most important pollinators in the world. There are over 4,000 species of bees in North America and hundreds of species in South Dakota. Over 90% of the bees are solitary, but some are communal or social bees like honey bees and some bumblebees. About 30% of solitary bees use locations like abandoned beetle tunnels in old logs for nesting and 70% nest in the ground. Butterflies are another important pollinator in South Dakota and habitat provided for either will benefit both and also benefit your garden.

## GARDEN LOCATION AND MAINTENANCE

The best location for a pollinator garden has a mix of full and partial sun. Provide a place for butterflies to rest and bask in the sun. Butterflies need sun for orientation and to warm their wings for flight. Flat stones placed in a sunny part of the garden provide butterflies with an area to enjoy the sun. Butterflies often congregate on wet sand and mud to partake in "puddling," drinking water and extracting minerals from damp puddles. Place coarse sand in a shallow pan and then insert the pan in the soil of your habitat. Make sure to keep the sand moist. Provide an area of bare or nearly bare soil that is undisturbed for ground nesting bees. Mulching your garden is a good idea for moisture retention, weed suppression, and soil health, but many ground nesting bees require an area of well-drained bare ground. The area does not need to be large or exposed to the wind, a small area about 12 inches square will be sufficient.

Avoid areas with a strong history of noxious weeds and try to locate the garden in an area with good soils that are not too wet. A garden near other existing habitat is better than an isolated island of habitat.

Leave residual vegetation (dead stems) in the garden until warm weather arrives in the spring. Many cavity nesting pollinators use dead hollow stems for nesting. Beds can be cleaned once the weather has warmed in the spring and any extra stems or leaves that are not left as mulch can be added to a compost pile.

Plant good nectar sources in the sun. Your key butterfly nectar source plants should receive full sun from mid-morning to mid-afternoon. Butterfly adults generally feed only in the sun. If sunshine is limited in your landscape, try adding butterfly nectar sources to the vegetable garden.

## GARDEN DESIGN

- Place taller flowering plants and native grasses towards the back of the flower bed and shorter plants towards the front. This allows better growth and more sun to reach the flowers.
- Use bloom date guide included in this document and have at least one species blooming during all seasons, from April to October.
- Place clusters of each species (4-6 plants) rather than random scattered plants. Pollinators are more attracted to a cluster of plants that are blooming at the same time.
- Use the bloom color guide to select several different colors of flowers rather than all one color such as yellow or purple.
- Cover the garden area with a thick layer of mulch after planting (if using plugs or potted plants) or wait until seedlings have developed before mulching if using seed. Make sure to leave at least one bare ground area for ground nesting bees.

***INFORMATION PROVIDED BY THE SOUTH DAKOTA SOIL HEALTH COALITION – sdsoilhealthcoalition.com***

# THE GROWING CONCERN OVER PFAS AND LITHIUM IN SOUTH DAKOTA'S WATER

Recently, there has been increasing awareness of contaminants in drinking water, with two substances drawing particular attention: per- and polyfluoroalkyl substances (PFAS) and lithium. Like many other states, South Dakota has begun rigorous testing to assess and address these contaminants, which pose potential risks to public health and the environment.

## What Are PFAS?

PFAS, often referred to as "forever chemicals," are a group of synthetic compounds used in various industrial and consumer products due to their resistance to water, grease, and heat. These chemicals are commonly found in non-stick cookware, waterproof clothing, firefighting foams, and certain food packaging. While their durability makes them useful, it also means they persist in the environment and accumulate in human and animal tissues over time.

**Studies have linked PFAS exposure to a range of health issues, including:**

- Increased cholesterol levels
- Hormonal disruptions
- Immune system suppression
- Certain cancers

Given these potential risks, the U.S. Environmental Protection Agency (EPA) has been working to establish stricter guidelines for PFAS levels in drinking water. This has prompted states like South Dakota to conduct widespread testing to better understand the prevalence of these chemicals in local water systems.

## Why Test for Lithium?

Lithium is a naturally occurring element found in rocks, soil, and water. It has various industrial applications, including rechargeable batteries, ceramics, and pharmaceuticals. While the EPA does not currently regulate lithium as a contaminant, its presence in drinking water

has raised questions about its long-term health effects.

Low levels of lithium in water have been linked to potential mental health benefits, such as reduced rates of depression and suicide. However, excessive exposure could lead to health issues, including kidney damage and thyroid dysfunction. The increasing demand for lithium due to the rise in electric vehicles and renewable energy storage systems has also raised concerns about potential environmental contamination from mining and industrial processes.

**South Dakota's decision to test for PFAS and lithium reflects a broader commitment to public health and ensuring the sustainability of its water resources. Key factors driving these efforts include:**

1. **Federal Guidelines and Funding:** The federal government has prioritized addressing PFAS contamination through initiatives like the Bipartisan Infrastructure Law, which allocates water testing and treatment funding.

2. **Local Concerns:** Communities across South Dakota rely on groundwater for drinking water, making monitoring and addressing potential contaminants essential to prevent long-term health risks.

3. **Economic Implications:** As South Dakota's economy benefits from industries like agriculture and tourism, clean water is a cornerstone for both public trust and sustainable growth.

Testing for contaminants is just the first step. Effective remediation and prevention strategies will require:

- **Advanced Treatment Technologies:** Removing PFAS and lithium from water often involves specialized filtration systems, such as activated carbon or reverse osmosis.

- **Public Education:** Informing residents about the sources and risks of these contaminants empowers communities to advocate for stronger protections.

- **Collaboration:** Federal, state, and local governments must work together to fund and implement solutions that address contamination at its source.

As science continues to uncover the impacts of PFAS and lithium on health and the environment, South Dakota's proactive testing initiatives serve as a model for other states. By addressing these issues now, the state is taking important steps to ensure the safety and sustainability of its water resources for future generations.

In a world where clean water is an increasingly precious resource, vigilance and action are not just necessary – they are imperative.

# HOW YOUR WATER SOURCE AFFECTS QUALITY & CHEMISTRY

Water is essential to life, but did you know that its source plays a crucial role in determining its quality, taste, and safety? Whether your water comes from a river, lake, or underground aquifer, the differences in origin impact everything from mineral content to the presence of contaminants. Understanding these distinctions can help consumers make informed choices about their water consumption and treatment needs.

## SURFACE WATER VS. GROUNDWATER: WHAT'S THE DIFFERENCE?

Water supplies generally fall into two categories: surface water and groundwater. Surface water is sourced from lakes, rivers, and reservoirs, while groundwater comes from underground aquifers accessed through wells. Because surface water is exposed to environmental factors, it tends to have more organic contaminants and microbial activity. In contrast, groundwater is filtered naturally through layers of rock and soil, giving it a different chemical composition.

## WHAT'S IN YOUR WATER? A LOOK AT CONTAMINANTS AND CHEMISTRY:

### Surface Water Characteristics

- **Higher Microbial Activity** – Rivers and lakes are open to environmental exposure, making them more susceptible to bacteria, viruses, and parasites from runoff and wastewater discharge. This is why surface water typically requires extensive filtration and disinfection.
- **Organic and Chemical Contaminants** – Pesticides, herbicides, and industrial pollutants can wash into surface water sources, increasing the need for advanced treatment methods.
- **Nutrient Pollution** – Fertilizers used in agriculture can contribute to high nitrogen and phosphorus levels, leading to algal blooms and taste or odor issues.
- **Turbidity** (Cloudiness) – Surface water often contains suspended particles from soil erosion, making it appear murky and requiring additional treatment to remove sediments.

### Groundwater Characteristics

- **Higher Mineral Content** – As groundwater moves

through rock layers, it absorbs minerals like calcium, magnesium, and iron, which can contribute to water hardness and scaling in pipes and appliances.

- **Natural Contaminants** – Elements like arsenic, fluoride, and radon can be found in certain groundwater sources, sometimes requiring specialized treatment.
- **Lower Microbial Risk** – Because groundwater is naturally filtered through soil and rock, it generally contains fewer bacteria and viruses, though shallow wells can still be vulnerable to contamination.
- **Stable Chemistry** – Groundwater usually has a more consistent pH and alkalinity compared to surface water, which can fluctuate due to acid rain, industrial runoff, and seasonal changes.

## How Water Treatment Adapts to Different Sources

Since surface water and groundwater have distinct characteristics, their treatment methods also differ:

Surface water treatment focuses on removing pathogens, sediments, and pollutants. This often includes filtration, coagulation, sedimentation, and disinfection processes like chlorination or ultraviolet (UV) treatment.

Groundwater treatment typically addresses mineral content, heavy metals, and natural contaminants. Techniques like water softening, reverse osmosis, and aeration help remove excess minerals and unwanted elements.

## The Role of Climate and Geography in Water Quality

Climate and geographic factors significantly impact water quality and availability. Regions with heavy rainfall and dense vegetation often have more abundant surface water sources, while arid areas rely heavily on groundwater. Seasonal changes can affect water levels, temperature, and contamination risks. For instance:

Drought-prone regions may experience lower groundwater recharge, leading to higher mineral concentrations and water scarcity.

Coastal areas may face saltwater intrusion in freshwater supplies, requiring desalination efforts.

Industrial and agricultural zones are more likely to experience contamination from chemicals, fertilizers, and heavy metals seeping into both surface and groundwater.

## Water Quality Testing and Consumer Awareness

Regular water testing is crucial for both municipal and private water sources. Public water systems are required to comply with Environmental Protection Agency (EPA) regulations, ensuring safe drinking water through rigorous monitoring. However, private well owners must take responsibility for testing their water for contaminants like bacteria, nitrates, and heavy metals.

## What This Means for You

If your water comes from a municipal supply, rest assured that it undergoes rigorous testing and treatment to meet safety standards. However, if you rely on a private well, regular testing is essential to ensure safe drinking water, as groundwater quality can vary based on location and environmental factors.

Understanding how water quality is shaped by nature and human activity can help you appreciate the journey your water takes before it reaches your tap.

Understanding how water quality is shaped by nature and human activity can help you appreciate the journey your water takes before it reaches your tap. Whether you prefer the crisp taste of surface water or the mineral-rich quality of groundwater, being informed empowers you to make the best choices for your household's water needs.

## Future Trends in Water Treatment and Sustainability

As technology advances, new water treatment methods are emerging to improve efficiency and sustainability. Some key trends include:

- **Advanced Filtration Techniques** – Innovations like nanofiltration and membrane bioreactors provide more effective purification while using less energy.
- **Smart Water Monitoring** – IoT-based sensors allow real-time tracking of water quality and usage, helping communities detect contamination faster.
- **Water Reuse and Recycling** – Treated wastewater is increasingly being repurposed for irrigation, industrial use, and even potable water supplies.
- **Desalination Breakthroughs** – Improved desalination technology is making it more cost-effective to convert seawater into drinking water, benefiting coastal and drought-affected regions.

**By staying informed about these developments, consumers can make more sustainable water choices and contribute to a future where clean water remains accessible for all.**

# CLAY RURAL WATER SYSTEM

In January 1975, Clay County Extension Agent Bob Schurrer launched an ambitious initiative—surveying every farm and landowner in the county to gather information about water quality and availability. The survey also posed a pivotal question: Were residents interested in developing a rural water system? The response was overwhelming, with more than half expressing interest.

At the time, many rural residents faced significant water challenges. Wells in parts of the county contained high mineral levels, and many families relied on hauling water to cisterns on their farms and acreages. Recognizing the need for a sustainable solution, Schurrer and other community leaders took action.


In March 1975, three informational meetings were held across Clay County to discuss the feasibility of a rural water system. The primary advantage? Convenience. Attendees recognized the potential benefits, including improved water quality, consistent pressure, and a dependable supply during droughts. Encouraged by positive feedback, a steering committee was formed to further explore the idea.

The first organizational meeting took place on April 29, 1975, at the 4-H Center in Vermillion, drawing approximately 60 rural residents. With enthusiasm high, the group elected a 12-member Board of Directors, with Ken Mockler of Vermillion named Chairman. Rural resident Jack DeVany stepped forward to serve as the system's attorney, and by July 21, 1975, Clay Rural Water System was officially incorporated.

Establishing a rural water system was no small task. With little precedent to follow, the Board, along with Schurrer and DeVany, embarked on one of the most significant infrastructure efforts since rural electrification decades earlier. They had to answer a key question: "Why a rural water system?"

The answer was clear. A centralized system would provide clean water directly to the homes and farms. Additionally, improved water quality would protect plumbing fixtures and pipes, and livestock would benefit from a steady supply of water.

As interest spread beyond Clay County, the project's scope expanded to include Union County. The Board enlisted the engineering firm DeWild Grant Reckert and Associates (DGR) of Rock Rapids to conduct a feasibility study. Completed in January 1976, the report confirmed the system's viability, citing a service area that included 3,000 people, 1,700 dairy cattle, 59,000 feeder and stock cows, and 94,000 hogs and sheep.

The first annual meeting of Clay Rural Water System was held in January 1976, with Ernest Schmidt elected as Chairman. Sign-ups quickly began, with meetings in Wakonda, Garryowen, the SE Research Farm, and Vermillion. Within three days, 730 locations joined, eventually reaching 980 members, each paying a $200 hookup fee.

Securing funding was the next crucial step. In February 1976, the Board submitted a loan and grant application to the Farmers Home Administration. By fall 1977, funding was approved - a $3.35 million loan, a $660,000 grant, and a $300,000 state grant. Hookup fees from new members helped cover the remaining costs.

Construction began swiftly, and by the end of the process, Clay Rural Water System was serving nearly 1,000 members, delivering quality water to approximately 3,500 people and thousands of livestock. From concept to completion, the transformation took just five years.

Since its inception, Clay Rural Water has expanded tremendously. Membership has more than doubled, and system capacity has significantly increased. Initially,

# CLAY RURAL WATER SYSTEM

the system could treat 1.2 million gallons per day (MGD); today, it handles 1.5 MGD. Storage capacity has grown from 760,000 gallons to 1.21 million gallons.

A major milestone occurred in 1996 when the water plant was remodeled into a softening plant, further enhancing water quality. Today, most customers receive water from the Wakonda Water Treatment Plant, a 1.2 MGD facility utilizing lime softening. The plant draws from two high-capacity wells in the Lower Vermillion-Upper Missouri Aquifer, each producing over 1,000 gallons per minute (gpm). Customers in southern Union County receive water from the Wynstone Water Treatment Plant, which uses reverse-osmosis technology and wells in the Dakota Formation Aquifer, each yielding 350 gpm.

With total membership now at 2,555, Clay Rural Water System continues to innovate. In April 2022, the system secured a $7.44 million American Rescue Plan Act (ARPA) grant to fund the "Chapter Project," installing nearly 85,000 feet of pipeline to improve pressure, increase capacity, and address water loss issues.

The system's commitment to progress remains strong. In 2024, Clay Rural Water System received an additional $2.49 million ARPA grant to construct two ground storage reservoirs near the Greenfield reservoir and Wakonda Water Treatment Plant. The project also includes a new booster station and distribution line improvements to accommodate a Highway 46 construction project.

Further improvements include replacing the Spink booster station, originally installed in 1979. The upgraded booster will enhance water loss monitoring and improve pressure zones in the Akron and Spink areas. The Clay Rural Water System is on the move again this spring continuing with the final stages of the existing Phase I project, and moving forward with the design process of Phase II, which is the new Water Treatment Plant next to the Wakonda location.

From its humble beginnings to its role as a vital community resource, Clay Rural Water System has consistently adapted to meet the needs of its members. What began as a simple survey in 1975 has evolved into a modern, high-capacity water system supporting thousands of people and businesses across the region. As it continues to expand and modernize, Clay Rural Water System stands as a testament to vision, perseverance, and community commitment.

## DIRECTORS:

**Randy Huot** – President
**Cody Merrigan** – Vice President
**Patricia Manning** – Secretary/Treasurer
**Mark Bottolfson** – State Association Director
**Tim Irwin** – Director
**Ken Kessler** – Director
**Jerry Buum** – Director
**Randy Ronning** – Director
**Josh Wendling** – Director

## STAFF:

**Steve Muilenburg,** Manager
**Donna Henriksen,** Office Manager
**Pamela Lunning,** Controller
**Rob Ganschow,** Chief Treatment Plant Operator
**Andy Ganschow,** Chief Distribution Operator
**Phil Iverson,** System Operator
**Lane Severson,** System Operator
**Matt Thompson**, System Operator

## STATISTICS:

**Hookups**: 2,555

**Miles of Pipeline**: 1,405

**Water Source**: Groundwater (Lower Vermillion-Upper Missouri), Dakota Aquifer

**Counties Served**: Clay, Union, parts of Lincoln, Turner, and Yankton

**Towns Served Individual**: Burbank, Meckling, Deer Run

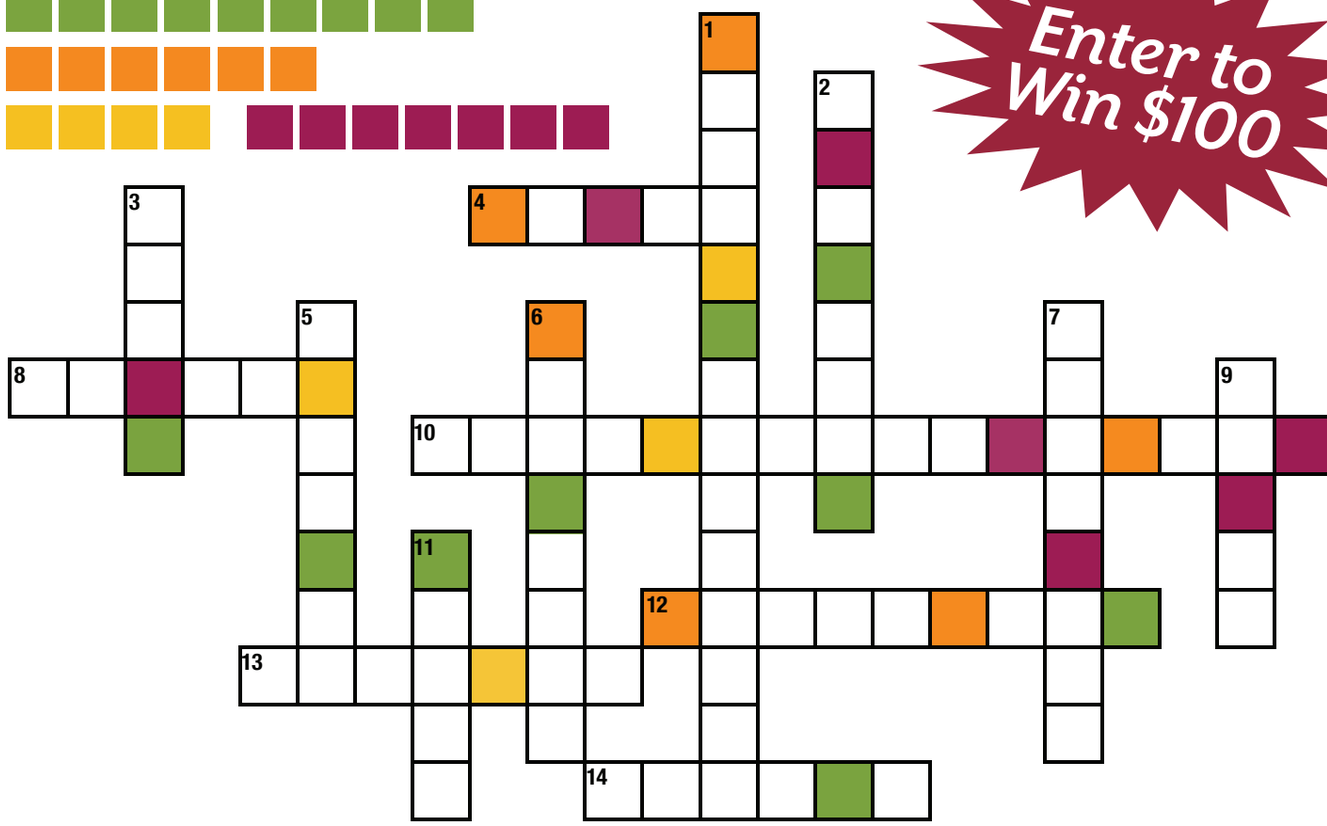
**Towns Served Bulk**: Wakonda, Gayville

# RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

## LOCAL FLORA

### SCRAMBLE ANSWER

Enter to Win $100




## Across

4. Fragrant purple or white flower commonly found in shrubs
8. South Dakota's state flower, blooms early in spring
10. Native prairie flower known for its immune-boosting properties
12. Tall, bright flower that follows the sun
13. Perennial flower that blooms for just one day
14. Colorful garden annual that attracts butterflies

## Down

1. A yellow wildflower with a dark center, often seen in meadows
2. Also known as bee balm, loved by pollinators
3. Simple white flower with a yellow center, often used in 'he loves me, he loves me not'
5. Popular garden flower available in many colors, often used in hanging baskets
6. Bright orange or yellow flower known for pest resistance
7. Essential plant for monarch butterflies
9. Fragrant, large blooms often seen in wedding bouquets
11. Spring-blooming bulb famous in Dutch gardens

**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, 2025 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 Douglas Lynch from Brookings-Deuel Rural Water who had the correct phrase of "feels like hot cocoa weather" for January 2025.**

SOUTH DAKOTA RURAL WATER

# APPRENTICESHIP PROGRAM

## For Water & Wastewater Operators

The South Dakota Association of Rural Water Systems (SDARWS) is developing a **Registered Apprenticeship Program**. The Apprenticeship Program will be a combination of On-the-Job training (OJT) and Related Technical Instruction (RTI) in which the apprentice is provided the tools necessary to be a successful **Operations Specialist** in the water or wastewater field.

- **Earn-as-you-learn program**
- **Accelerated pathway into the water and wastewater industry**
- **Work with qualified mentor from participating employer**
- **Progressive wage schedule**

### APPLICATION REQUIREMENTS:

- Must be at least 18-years-old
- Must have high school diploma, GED equivalency, or other high school equivalency credential
- Must be physically capable of performing the essential functions of the program
- Must possess a valid state issued driver's license

### TWO OPTIONS AVAILABLE

- Water Systems Operation Specialist
- Wastewater Systems Operation Specialist

**The Apprenticeship Program should take approximately two years to complete.**

- ☐ 4,000 hours of On-the-Job Training (OJT) required
- ☐ 288 hours of Related Technical Instruction (RTI) required

## LEARN MORE AT sdarws.com/waterworks

**FOR MORE INFORMATION, CONTACT:**

Sue Bergheim, SDARWS Apprenticeship Coordinator
sbergheim@sdarws.com
605-556-7219 or 605-501-9208

SDARWS
South Dakota Association of Rural Water Systems

# YEARS OF SERVICE MILESTONES


*Richard Doud*


*John Kramer and Steve Baker*

**West River/Lyman-Jones Rural Water would like to recognize the following employees and director for years of service. We thank them for their dedication to the rural water system.**

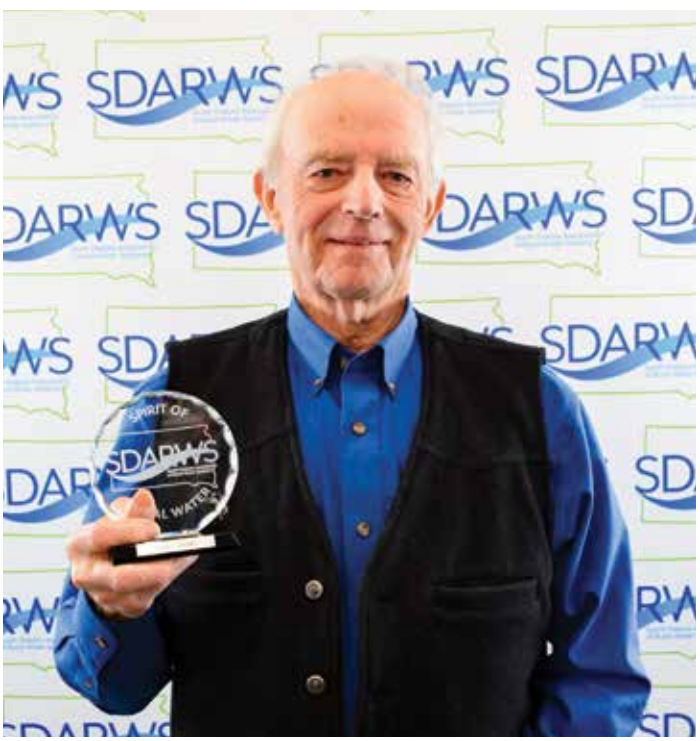
**20 Years**
**John Kramer,** Philip O&M

**20 Years**
**Steve Baker,** Murdo O&M

**30 Years**
**Richard Doud,** Director Representing Rural Haakon County

## CORDES RECEIVES SPIRIT OF RURAL WATER AWARD

Kirk Cordes received the Spirit of Rural Water Award at the South Dakota Rural Water Annual Technical Conference in Pierre on January 14, 2025. This award is presented to an individual, business or group that goes above and beyond for a rural water system or rural water cause. Kirk served on the WR/LJ Board from 1982 to 2024. We thank Kirk for his dedication to WR/LJ Rural Water. Congratulations!



# WRLJ DEBUTS NEW WEBSITE

WR/LJ Rural Water has launched a new website. You'll experience an updated look and navigation that's been designed to help you access the information and services you need more quickly and conveniently. Please check it out at www.wrlj.com.


# MEET JIGGS O'CONNELL – WR/LJ'S NEWEST DIRECTOR

Jiggs O'Connell grew up on the family ranch near Creighton, SD and graduated from Wall High School. After high school he attended South Dakota State University and graduated with a BS degree in Agriculture Business.

Jiggs had a 33 years career with USDA. In 2008 he went back to working on the family ranch.

"I believe with the benefits of rural water; it is almost free," said O'Connell. "Rural water is great because we had very poor water on the ranch growing up. Also, the country school I attended did not have running water."

Jiggs and his wife Ann live in Rapid City. They have three grown children and four grandchildren. Jiggs enjoys being a rodeo bum and likes watching a good bucking horse.

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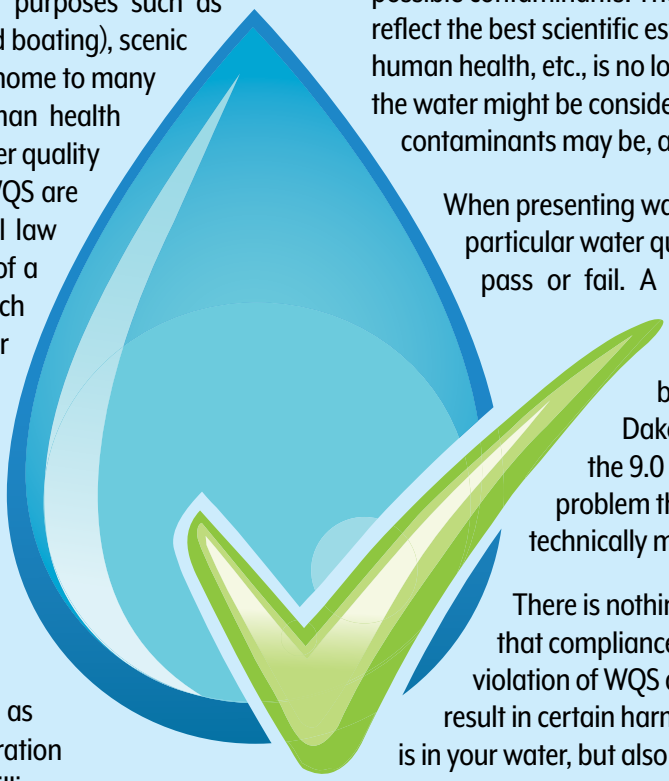
# WATER MATTERS

## WATER QUALITY STANDARDS

Water bodies can be used for purposes such as recreation (e.g. swimming and boating), scenic enjoyment and fishing, and are the home to many aquatic organisms. To protect human health and aquatic life in these waters, water quality standards (WQS) are established. WQS are provisions of state, tribal or federal law that describe the desired condition of a water body and the means by which that condition will be protected or achieved. Further, WQS form a legal basis for controlling pollutants entering these waters.



Standards are typically defined in terms of an acceptable concentration or level of a particular chemical, physical or biologic parameter. For example, in South Dakota, for waters designated as drinking water supplies, the concentration of nitrate (NO3-) cannot exceed 10 milligrams per liter (mg/L). Waters designated as cold-water fisheries (trout streams), water temperature cannot exceed 65°F. If swimming immersion recreation (in government speak) is the goal, levels of Escherichia coli (E. coli) bacteria in excess of 235 colonies per 100 milliliters of sample are considered problematic.

It is important to understand that while WQS have been established for most water bodies in the State, compliance with the WQS does not mean that the water is completely free of any possible contaminants. The established standards most often reflect the best scientific estimate of when the potential risk to human health, etc., is no longer statistically acceptable. Although the water might be considered safe from a regulatory standpoint, contaminants may be, and most likely are, still present.

When presenting water quality information, the results of a particular water quality test are often expressed as either pass or fail. A nitrate reading of 9.0 mg/L would be considered 'acceptable,' as it is below the 10 mg/L WQS. However, background nitrate levels in South Dakota waters rarely exceed 1-2 mg/L, so the 9.0 reading is strongly suggestive of a problem that ought to be addressed, even if it technically meets the WQS.

There is nothing magic about WQS that would mean that compliance translates to zero risk. Similarly, violation of WQS does not mean that interaction will result in certain harm. It is important to know not only what is in your water, but also what this really means.

**What are South Dakota's water quality standards?** They can be found in Chapter 74:51:01 of the Administrative Rules of South Dakota. https://sdlegislature.gov/Rules/DisplayRule.aspx?Rule=74:51:01

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