# MID DAKOTA RURAL WATER SYSTEM

July 2020 | Volume 16, Issue 1

WATER UTILITIES Should Focus on Non-Revenue Water

Quality On Tap!

WATER FOR AGRICULTURAL DEVELOPMENT REQUIRES THOUGHTFUL PLANNING

**LEAD SERVICE LINES** 

CONSUMER CONFIDENCE REPORT | SAVE THE DATE: ANNUAL MEETING OCTOBER 15

## FROM THE MANAGER

Scott Gross, General Manager Mid Dakota Rural Water System, Inc.

What a difference a year makes! Who would have thought that a virus could create so much havoc throughout the world. Mid-Dakota is here for our members during these trying times with the onset of the COVID -19 pandemic. At this time our offices are closed to the public (doors locked), but employees are still hard at work during regular business hours. Mid-Dakota requests you use phone, email, or the drop box at the Miller office for correspondence. We will continue to monitor any changes in the COVID-19 pandemic and adhere to additional federal, state and local directives as they are issued and understood.

As has been mentioned in previous columns Mid-Dakota will have a very busy year with construction. Landmark has already begun construction of our new 1.5 million-gallon watertower being built beside our 1.5 million-gallon watertower on our Highmore tank site. Along with this project Mid-Dakota also has two contracts for additional 24-inch parallel pipe approximately 20 miles divided over three different segments between Highmore and Vayland. These construction projects are set to start breaking ground May 1, 2020 weather permitting and also dependent on how the CDC has determined what can or can't be done due to the coronavirus. Ree Heights also has a project that affects Mid-Dakota, Northern Improvements will begin replumbing the town hooking it directly to the Mid-Dakota system, at the end of this project the water system will be taken over by Mid-Dakota and all town hookups will become individual connections to the Mid-Dakota system. This project is also ready to begin construction around May 1, 2020.

I would like to thank all of Mid-Dakota's customers for all their understanding and patience as Mid-Dakota works through our growing pains in continuing to serve our population with a quality product and service. In closing, I would like to remind everyone that it is everyone's responsibility to keep your family safe and to follow all guidelines dealing with the COVID-19 pandemic. Remember small groups and social distancing, stay safe. Thanks again for all of your support.



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Connie Aymar	Financial Manager
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## Mid-Dakota Rural Water System, Inc. **NOTICE OF VACANCY** on the Board of Directors

id-Dakota Rural Water System, Inc. hereby gives notice to its membership that the following seats upon the Board of Directors will be up for election at its 2020 Annual Meeting:

There is one expired term in Rural Director District area #2, consisting of the following: All of Hughes County except that portion of the Highmore West service area lying in Hughes County.

There is one expired term in Rural Director District area #5, consisting of the following: All of Kingsbury County; that portion of the Highmore East service area lying in Hand County; those portions of the Highmore East, Pearl Creek and Wolsey service areas lying in Beadle County.

There is one expired term for City of Huron Director.

(Note: Contact Mid-Dakota if you question whether or not you are in Districts #2 or 5)

Rural director nominations must be made by petition. Petitions must be filed with Mid-Dakota not later than 4:00 p.m. on September 15, 2020.

Nominations for City of Huron director will be made by the City of Huron. A nominating resolution from the City of Huron shall be filed with Mid-Dakota's office not later than 4:00 p.m. on October 5, 2020.

For more information, contact the Mid-Dakota Rural Water System, Inc. office at 605-853-3159 or 1-800-439-3079.

# Save the Date Quality MID DAKOTA RURAL WATER SYSTEM

## ANNUAL MEETING October 15, 2019 10:00 a.m. – 2:00 p.m. All Mid-Dakota offices

## Red Power Round-Up August 8-10

Attention International Harvester aficionados! South Dakota Red Power Chapter 21 welcomes all International Harvester parade, quilt show, children's activities, tours, steak and chicken

collectors, vendors and the general public to the 31st annual Red Power Round Up August 8th-10th on the South Dakota State Fairgrounds in Huron.

The 31st Annual Red Power Roundup is remarkable in many ways. It's the 31st annual celebration for people from all around the world to gather to see the history of International Harvester and agriculture-related memorabilia. Along with an impressive selection of tractors, engines, trucks, and equipment, attendees can also browse exhibits which include household appliances, milking equipment, and toy collections. This is a unique and rare opportunity for people of South Dakota to experience a show of this nature and see how American agriculture

was shaped. The theme for the 2020 National Red Power Round Up is "Looking back with 20/20 vision."

The three-day event will be fun for the whole family: an auction,



feed and a variety of other entertainment including the Great Plains Truck and Tractor Pull presented by Titan Machinery the evening before on the 7th @ 6:00 p.m. The truck and tractor pull is being hosted by the SD State Fair and not affiliated with the Red Power Round Up.

Show questions can be directed to event co-chairmen Steve Masat and Dennis Schilling. Steve can be reached at 605.460.0197, while Dennis can be reached at 605-354-2867. Steve and Dennis are also available to come and speak to organizations throughout the region about this amazing event so don't hesitate to reach out to them for availability and scheduling.

For camping information, call the SD State Fairgrounds at 605-353-7340. For

more information on the event, check out the event website at www.redpowerroundup2020.com.



## Mid-Dakota Scholarships Awarded

The board of directors of the Mid-Dakota Rural Water System is pleased to announce that four students have been chosen to receive a scholarship of \$500.00 each. The very deserving individuals are Bailey Binger, the son of Chad & Kristie Binger, from the rural area near Tulare; Sydney Jessen, the daughter of Jon & Janelle Jessen from the rural area near Ree Heights; Erin Moncur, the daughter of Mike & Shelley Moncur from the town of Miller; and Maria Noyes, the daughter of Ryan & Ann Noyes from the rural area near Pierre. Bailey is planning to attend Mitchell Technical Institute to pursue a career in Welding. Sydney plans to attend South Dakota State University to pursue a career in Early Childhood/Elementary Education. Erin plans to attend Dakota Wesleyan University to pursue a career in Accounting. Maria will be attending Black Hills State University for a career in Environmental Science.

The board and staff at Mid-Dakota congratulate the winners and would also like to thank the other students for taking the time to submit an application. Best wishes to all of them in their future endeavors.







Maria Noyes

Erin Moncur



Sydney Jessen Quality On Tap!



## Rate Table Effective January 1, 2020

501 Reside	ntial 1-Unit
\$43.00	per month minimum bill
\$5.00	per 1,000 gallons 1st 33,000
\$7.25	per 1,000 gallons over 33,000
502 Rural	Household 2-Units
\$53.00	per month minimum bill
\$5.00	per 1,000 gallons 1st 10,000
\$4.00	per 1,000 gallons next 56,000
\$7.25	Per 1,000 gallons over 66,000
504 Rural	Household 4-Units
\$71.00	per month minimum bill
\$5.00	per 1,000 gallons 1st 10,000
\$4.00	per 1,000 gallons next 122,000
\$7.25	per 1,000 gallons over 132,000
506 Rural	Household 6-Units
\$88.00	per month minimum bill
\$5.00	per 1,000 gallons 1st 10,000
\$4.00	per 1,000 gallons next 188,000
\$7.25	per 1,000 gallons over 198,000
511 Livesto	ck
\$31.00	per month minimum bill
\$4.00	per 1,000 gallons 1st 300,000 (per year)
\$5.00	per 1,000 gallons 301,000 to 700,000 (per year
\$7.25	per 1,000 gallons over 700,000 (per year)
161, 162, 16	4, 165 Special Class I & II
\$16.40	per GPM per month minimum bill
\$25.00	per GPM per month demand charge
\$0.55	per 1,000 gallons
163, 166 Sp	ecial Class III
\$4.69	per Pers (equiv) per month minimum bill
\$4.75	per Pers (equiv) per month demand charge
\$0.55	per 1,000 gallons up to contract amount
\$7.25	per 1,000 gallons over contract amount
1 Minimum & d 2 Livestock (51) 3 "equivalent"	lemand charges do not include any water. 1) water allocations are annual use, not monthly. population "person" = contract GPD ÷ 270

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## Water Utilities Should Focus on NON-Revenue Water

#### By Erin Hayes, Kingbrook Rural Water System, Inc., General Manager

A ccording to Wikipedia, Non-revenue water (NRW) is water that has been produced and is "lost" before it reaches the customer. But, in reality, it is much more complicated than that. Lost water can be categorized as real losses, sometimes also referred to as physical losses (for example, leaks) or apparent losses (for example, metering inaccuracies). Non-Revenue Water also includes water used by the utility for flushing to maintain water quality in the distribution system and other unmetered uses.

Non-revenue water is as bad as it sounds. It represents water that the utility is producing, but unable to generate revenue from. For lost water, this is extremely wasteful and can be a significant financial burden on the utility. The revenue factors in calculating the value "lost" include the cost of production (chemicals, power, and labor) and capital (capacity costs, depreciation of assets, etc.). These numbers must be evaluated annually based on the utility's rate study.

A utility's primary focus in this area of business is to reduce nonrevenue water by focusing on real and apparent losses and closing the gap between the volume of water we supply and the water our customers are billed each month. Non-revenue water can quickly add up. In fact, in North America, National Rural Water indicates water loss between 20 and 30 percent. South Dakota Rural Water Systems have always been proactive about water loss. They are typically lower than the national average, but it is not uncommon for water loss to increase over the years as the overall system ages. As a result of this nagging trend, most rural water systems set a target to maintain water loss below 15%, and they aggressively take measures to reduce water loss as much as feasible.

Non-revenue water is extraordinarily complex. Through research and analysis of an organization's water loss, you need to start by identifying the physical and operational factors affecting leaks with parameters such as hydraulic pressure, pipe condition, and water supply.

### The sources of non-revenue water include:

- Main leaks and storage tank overflow
- Unauthorized use (theft and tampering)
- Unbilled and unmetered consumption
- Meter inaccuracies

Better management of our water systems and have the technology to measure and control water that moves through our pipeline accurately, timely, and dependably by monitoring flow data and control is another way your organization adds value to its customers.

Many water systems have begun using Automatic Meter Reading (AMR)/Advanced Metering Systems (AMS) throughout their service areas. Through performance, monitoring using Metering Analytical (software, AMR meters capture customer demands through cellular, fixed network, and mobile communication technologies. Some utilities also provide their customers with consumer engagement tools where customers have access to their consumption data, allowing them to view their usage activity and gain a greater understanding and control of the water they consume. Some software features allow customers to be notified of excessive use or potential leaks that may be occurring on their premises. A significant number of progressive Utilities have also begun employing zone metering. Generally, the utility can track water loss in "zones" throughout the service area.

Unfortunately, it is easy to become overwhelmed with so much data. Processing 15-minute customer demands on thousands of customers and combining that with SCADA (Supervisory Controls And Data Acquisition) systems can prove to be a significant amount of data to process. With the assistance of consultants competent in industrial technologies, a utility can outline benchmarks to help focus their efforts on reducing water loss.

These benchmarks warrant further discussion. The American Water Works Association (AWWA) publishes a wealth of information for those interested in reducing water loss. One helpful resource is the AWWA Manual M36 – Water Audits and Loss Control Programs. In this resource, the AWWA recommends doing away with the age-old "percent water loss" and instead recommends reporting the gallons lost per service per year or for sparsely populated systems (applicable to most rural water systems in South Dakota) reporting the gallons lost per mile of pipe. By way of example, a utility could adopt 120 gal/day/mile as an upper limit and aggressively pursue any area that exceeds the benchmark. Using benchmarks can help decide which zones or areas in the system to prioritize.

#### LOST WATER IS LOST REVENUE are lost per year **\$** Ŝ Ŝ Ś Ŝ Ŝ Ś Ś Ś \$ Ś Ś - costing more Ŝ \$ S S S \$ than \$2.6B \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$\$\$ \$ \$ \$ \$



# **LET'S GET THE LEAD OUT!** (of lead service lines that is...)

#### By Mark Mayer, Administrator for the Drinking Water Program, SD Department of Environment & Natural Resources

The Safe Drinking Water Act's Lead and Copper Rule is, without a doubt, one of the most complex rules within the Act. EPA began working on the revisions to this rule over 10 years ago. The lead crisis in Flint, MI underscored the need for these revisions. On November 13, 2019, the long-awaited proposed revisions to the Lead and Copper Rule were published by EPA in the Federal Register. Whenever a regulation is proposed, whether it be a new regulation or revisions to an existing regulation, public comments of the proposal are solicited. In South Dakota, DENR's Drinking Water Program typically reviews the proposed rule changes and submits official comments that we feel are necessary to make the rule work in South Dakota. When we prepare comments, we try to focus on making the rule as easy to implement at the system level as possible while still achieving the goal of improved public health protection. This approach ultimately means it will also take less effort to implement at the state level saving taxpayer's money and limiting government intrusion.

So, you'd think, with 10 years to work on the revisions, they would be straight forward and improve public health protection while reducing the regulatory burden on the systems and state programs, right??? Unfortunately, that is not the case this time. EPA allows 90 days for the public to comment on the proposed rule and within that time, over 79,000 comments were received!

Ultimately, the primary focus of the proposed rule revisions is to literally "get the lead out" of water systems. Because lead is rarely



an issue with the supply source, the rule focuses on the service lines and plumbing system components that distribute the water within the customer's home or business. This public/private ownership issue has always been a struggle with this rule and as proposed, it only looks to get more complicated. To get the lead out, EPA proposes that all water systems put together a complete service line inventory. This idea is, if you don't know where the lead service lines are, how can you effectively plan to remove them? The proposal gives some details on how they envision the inventory to be completed, however further guidance will be needed to better define what they will require.

In South Dakota, we felt the requirement of a complete service line inventory was overly burdensome. When we look at existing 90th percentile lead data for water systems in South Dakota, most systems have a 90th percentile level less than 5 parts per billion, which is 1/3 of the action level. We were concerned that the work and effort required to put together a complete materials inventory would not result in a significant improvement in public health protection.

In addition to the complete service line inventories, EPA takes it a step further and is requiring systems to develop and submit a lead service line replacement plan. The proposal requires systems to develop a plan within three years of the final rule effective date. The plan must outline how a system plans to remove lead service lines at an established replacement rate. The replacement is supposed to also include the private side of the service line. Partial service line replacement is highly discouraged, so not only does a system need to replace the portion of the service line they own, they must make every effort to coordinate the replacement of the private portion of the service line as well.

Another new proposed requirement that may cause problems is a provision EPA is calling "Find-and-Fix." This provision requires that each lead sample submitted that exceeds 15 parts per billion will require the water system to go to that sample location and find out why the sample results occurred and then work with the customer to fix the problem.

Along with the "Find-and-Fix" provisions, fallout from the Flint, MI lead crisis has led EPA to strengthen the public notice requirements. For any sample result exceeding 15 parts per billion, EPA is proposing that those results need to be handled as a Tier 1 public notice and shared within 24 hours of the results being reported. We feel this requirement is unfounded considering the reality that samples can and do sit in the lab for weeks at a time. It doesn't make sense to us that if a sample can sit in a lab for a long period of time, that a 24-hour window to communicate the results was appropriate.

A final proposed revision that we want to get on your radar is the possible requirement of lead testing required in schools and daycares served by your water system. Because the most sensitive population to lead exposure is children, EPA is now proposing that water systems collect lead samples from 20% of schools and daycares in their service area each year. Therefore, every five years, each of these facilities will be sampled. This is a significant change and adds a substantial burden to systems and the states. We commented that this provision should not be a requirement so much as a recommendation.

#### What's next?

EPA is working on the final rule. They will be doing their best to address the myriad of comments made and publish a final rule that is shaped by the input and ideas embodied in the comments. We are anticipating that a final rule will be published sometime late this summer or early fall.

When a final rule is published, the State typically has two years to revise our rules and primacy agreements with EPA before the rule becomes effective. Once the rules are effective and enforceable at the state level, there are additional periods of time to allow systems to accomplish the tasks required by the new rule. For instance, the materials inventories are proposed to be completed within three years of the effective date of the rule so that could be up to five years from now.

#### What can I do now?

The best thing you can do now is to start to think about your service line inventories and how you can start to verify what's out there. If you have the opportunity to be inside a home and can field verify what the materials are for that service line, take some notes and start a log of what you learn so that if the materials inventory requirement is part of the final rule, you're on your way to having that information before it's required.

Lastly, keep this issue on your radar screen. As with any past rule change, as details emerge, training and guidance will be developed to ensure you know what you need to do and when you need to do it. South Dakotan's are fortunate that we have a good track record of compliance and a good base of common sensed water professionals to take on this challenge.



## Water for Agricultural Development Requires Thoughtful Planning



#### By Jay Gilbertson, East Dakota Water Development District

Water is something that we all depend on, but it can be especially important in agricultural settings. The presence or absence of available water has long dictated where and when many agricultural activities can take place. Substantial efforts have been undertaken in South Dakota to supply water to areas that might be lacking in water of sufficient quantity or quality (including the regional water system that sends out this publication). Large, interconnected water distribution networks have been created to bring water to a wide range of users homes, farms and business operations.

At the same time, given the critical nature of this resource, limitations are often placed on activities that might create a potential for harm or contamination of the water source(s). For example, a number of counties in the eastern part of the state have adopted zoning ordinances designed to protect shallow

For anyone interested in starting up a new agricultural operation, or expanding an existing facility, identifying an adequate and available water source is critical. aquifers, limiting or at times out right prohibiting certain practices in specific areas. State permits issued to community waste water treatment facilities, and other large waste water generators, also contain restrictions on the character of the effluent they discharge. When a majority of the population, as well as agricultural, commercial and industrial development, depend

on limited water resources, it only makes sense to protect it for current and future users.

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When someone is considering starting, or expanding, an agricultural operation, consideration must be given to both how water for the operation will be obtained, as well as how local water resources will be protected. Unfortunately, these two concepts often are in direct conflict. Locating a facility over a shallow aquifer means that an easily accessible water supply is literally just a few feet away. However, such a resource is by

definition highly susceptible to contamination that might emanate from such a facility, potentially ruining the resource for all who depend on it.

A few years back, the South Dakota Department of Agriculture created the County Site Analysis Program (CSAP) to identify land parcels that were suitable, When someone is considering starting, or expanding, an agricultural operation, consideration must be given to both how water for the operation will be obtained, as well as how local water resources will be protected.

according to state and local requirements, for a range of agricultural development activities. Most of the constraints relate to setback distances from a range of features, such as individual residences or communities, but could include prohibitions on development over shallow aquifers. Local setback criteria and policies can vary, so assessments were conducted at the countyby-county level.

In addition to the applicable governmental constraints (largely based on physical location), the CSAP also considered proximity to necessary support services, such as transportation, power sources and water supplies. Few enterprises could likely exist, let alone thrive, without suitable roads, adequate power lines and access to sufficient quantities of high-quality water. In many instances, access to a suitable water supply has proven to be a considerable challenge.

Surface water features, such as rivers, lakes or streams, are readily identifiable on published maps of a given area. In most cases, they are largely features to be avoided when planning a major agricultural development. Beyond general irrigation, such sources would require significant treatment prior to most everyday usage, the likes of which is beyond all but the largest facilities. Further, such features are often highly valued for recreational purposes, uses that may be viewed as incompatible with largescale development of any kind. Note: Although seemingly static features, water levels in lakes and streams can change over time in response to climatic conditions. Site selection should include consideration of what might happen to a nearby water body in response to abnormally high (flood) or low (drought) conditions. Many existing and future agricultural facilities might look to make use of ground water to address their needs. The Geological Survey Program of the South Dakota Department of Environment and Natural Resources has been working to identify and map the aquifers of the state for many years. Numerous published reports describe these resources, backed up by records from thousands of test holes and observations wells. Chances are pretty good,

> particularly in the eastern part of the state, that if there isn't information available about a particular location, there is data from nearby that can be used to predict what might be found.

In an ideal situation, most new or expanding agricultural enterprises would like to be able to just purchase water from a supplier, and avoid all that goes with developing, operating and maintaining their own supply. If you drive around the countryside, it certainly seems like the ditches are full of

water lines from one rural water system or another. However, it must be noted that while there might be a water line close to a particular property, the water in that pipe might well be fully allocated (already spoken for). If a pipeline is already running at full capacity, there is no water available for new/additional consumers.

It is important to understand that when a rural water system is constructed, it is built to provide the amount of water that is needed to serve it's customer base, i.e., system members. In most cases, members contributed earnest money that helped leverage other funds used to build the system. Consequently, water treatment and distribution capacity of a system were sized to account only for those needs identified at the time of system construction. In most instances, there is relatively little 'extra' capacity that might provide service to other customers. As a result, a new or expanding agricultural development project may be required to cover all, or at least most, of the costs of construction of a new or expanded delivery line.

For anyone interested in starting up a new agricultural operation, or expanding an existing facility, identifying an adequate and available water source is critical. As noted above, while it might seem that water is always going to be available whenever and wherever it might be desired but, that is definitely not the case. It might not be the very first thing taken into consideration, the presence or absence of water can be a critical determining factor in many instances. In more than a few cases, considerable development plans and investments have been made, only to have the effort scuttled by a lack of available water. A little early planning can prevent a lot of headaches later on.



## SYSTEM SPOTLIGHT

# LINCOLN COUNTY RURAL WATER SYSTEM

n the fall of 1969, the Lincoln County Rural Water System (LCRWS) was organized by area farmers who were in need of water because of the poor quality of their farm wells. LCRWS would be the first organized Rural Water system in eastern South Dakota.

The System was incorporated on September 15, 1970 as a nonprofit corporation. The first board meeting was held September 17, 1970. Ten members made up the original board of directors. Since then, the board has been reduced to seven members.

DeWild Grant Reckert Engineering (DGR) was hired to do a feasibility study, and FmHA (now Rural Development) provided funding for the project. As a condition of funding, a firm source of water was necessary in order to qualify for the loan/grant. FmHA and East Dakota Conservation Sub-District recommended that

the system contact the City of Sioux Falls about supplying water as the city was in the process of expanding its water treatment plant. The City of Sioux Falls recommended that they supply water to LCRWS as the capacity of the plant would be 52.5 million gallons a day after the expansion.

LCRWS applied for a water permit from the State of South Dakota ensuring that Sioux Falls was able to sell water to those

outside the city limits. The permit was granted for 1.63 cubic feet per second or 31,687,200 gallons per month processed through the Sioux Falls treatment plant.

In the original water delivery agreement of 1971 Sioux Falls put limitations on the amount of water they would deliver. The limits were set at 3.5 million gallons per month and 300 customers.

Construction started in the summer of 1971 with 150 miles of pipe, a tower, ground storage reservoir (GSR) and a pumping station. Water was delivered to the GSR on Cliff Avenue and what is now 62nd street and pumped to the tower and distribution system. At the time, the GSR was about two miles out of Sioux Falls. In late 1972 water started flowing to customers.

Due to the restrictions in the original agreement (quantity and number of users), the system could not add new customers. People built anyway and put in cisterns and purchased water from water haulers. From 1974 to 1978 no new users were added. In August of 1977, the System requested an increase in the quantity of water to four million gallons per month so additional users could be added. A letter was sent to the Sioux Falls City Commission informing them that LCRWS was looking for another source but planning to keep Sioux Falls as a backup. In September 1977 the city agreed to an increase up to four million gallons per month.

In 1978 LCRWS considered a project that consisted of five wells, a treatment plant northeast of Harrisburg and 30 miles of pipeline. The plans for a treatment plant and additional wells were put on hold due to a water quality problem (too much selenium). The end project consisted of a well and 30 miles of pipeline that included a line for an emergency hookup to Tea. LCRWS borrowed \$498,000 from FmHA for 40 years. With this expansion project the system was able to hook up those users on the waiting list.

LCRWS started serving the City of Tea in June of 1979 on an emergency basis. In October of 1979, the system was able to



increase their water delivery agreement to six million gallons per month. In 1982 the water delivery agreement was increased to eight million gallons per month.

On August 1, 1983, LCRWS purchased land for a treatment plant. Per the original agreement with the city of Sioux Falls, in LCRWS was required to construct a second ground storage reservoir at 62nd and

Cliff, which began construction in 1984. The agreement required LCRWS to have three days of water in storage – ensuring that the city could provide water to LCRWS and still reduce demands on the city's infrastructure during peak flows. This project had a cost of \$225,000 which was borrowed through FmHA.

In 1984 the water delivery agreement was increased to 12 million gallons per month. Later in 1986, LCRWS became the City of Tea's primary water source. Then in August of 1987, LCRWS got the allotment in the water delivery agreement increased to 15 million gallons per month.

LCRWS did more well exploration in the Dakota Aquifer in 1988, southeast of Harrisburg and received a future use water permit. Unfortunately test wells drilled by the South Dakota Geological Survey (SDGS) did not locate a sufficient water source to drill production wells.

The Lewis & Clark Rural Water System was formed in 1990, of which LCRWS became a member. With this system added, LCRWS secured a sufficient water source to meet present and future growth needs.



In 1991, LCRWS purchased land and built a new office and shop next to the original galvanized steel building that served as the office and shop. This building is located in Harrisburg and still serves as the main headquarters for business and operations.

In 1992 LCRWS constructed a 10-inch line extension from 69th Street to Minnesota Avenue and added a third high service pump to increase the flow out of the pump station.

From the mid 1980's to the early 2000's LCRWS saw growth of 75 to 100 new members per year.

In January of 2000 Harrisburg went from being an emergency standby member to a full time member. Harrisburg requested an allotment of 150,000 GPD average and 315,000 GPD peak.

Construction has been completed on several projects to help keep up with the growth of the system. Most notably in 2001 a system upgrade of a 12" line from Minnesota Avenue was added to the water tower site near Louise Avenue, and LCRWS built a 750,000-gallon water tower using \$1.2 million borrowed from SRF in 2003.

In September 2008, agreements were signed between LCRWS, the City of Sioux Falls, the City of Tea, and the City of Harrisburg establishing permanent future service territories.

Most recently, Lewis & Clark Regional Water System began supplying water to the system in August of 2012. LCRWS has an allocation of 1.791 million gallons per day, or 54 million gallons per month through the agreement with Lewis & Clark.

LCRWS began with one employee/manager; currently there are four full time employees. For over 40 years LCRWS has continued to utilize the expertise of DGR & Associates as their engineering firm.

Over the years LCRWS has transitioned from a system that primarily serves farms to a system that primarily serves acreages and small industrial businesses.

Cognizant of the rapid growth of the three communities around the system, the board of directors and staff of Lincoln County Rural Water System continue to plan and prepare for the future.



## Lincoln County Rural Water System

## DIRECTORS:

Joe Burns – Chairman

Otto Hagedorn - Secretary/Treasurer

Larry Healy – Vice-President

Chris Hofer - Director

Mike Perkinson - Director

Larry Healy - Director

Barry Lankhorst - Director

## STAFF:

Robin Dykstra – Manager Claire Hotze – Operations Dan Schwarz – Water Distribution Specialist Andrew Krege – Water Distribution Specialist

## STATISTICS:

Hookups: 2,367 Miles of Pipeline: 271 Water Source: Big Sioux Aquifer South, Lewis & Clark Regional Water System

Counties Served: portions of Lincoln and

Minnehaha counties

# R U R L W A T E R C R O S S W O R D & W O R D S C R A M B L E C O N T E S T

## Covid-19

## Enter to Win \$100



## ACROSS

- 7. Event not happening.
- 8. Abnormally high body temp
- 9. Enforced isolation
- 10. Another name for Coronavirus
- 12. Practice \_\_\_\_\_ distancing
- 13. The best thing to wash with
- 14. Hacking problem

## DOWN

- 1. Keep a distance of (2 words)
- 2. Clean to destroy bacteria
- 3. You should do this often for 20 seconds with soap and water
- 4. Safety covering (2 words)
- 5. An alcohol solution
- 6. Global outbreak
- 11. Avoid touching your eyes, nose, and \_\_\_\_\_
- 12. Slow the \_\_\_\_\_

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 <a href="http://www.sdarws.com/crossword.html">www.sdarws.com/crossword.html</a> with the correct phrase by July 10, 2020 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 Robert Field who had the correct phrase of "Wealth is a mindset" for April 2020.

## Quality On Tap!

# RURAL WATER ACROSS SOUTH DAKOTA

## WHY COMPANIES DOING THE RIGHT THING MATTERS MORE THAN EVER

**C**onstruction in the middle of a COVID-19 Pandemic? This is when we show our employees, customers and communities who we really are and what matters the most, health and safety!

Kingbrook Rural Water System, Inc., will be constructing approximately three miles of in-town underground pipeline, 91 new user services, valves, and miscellaneous work in Oldham, SD in the summer of 2020.

Beginning with our "Advertisement for Bids," we had to structure the sealed bids for the construction of the rural water service to the City of Oldham Project and how they were received by Kingbrook Rural Water System. Due to COVID-19 restrictions, bidders and members of the public were NOT allowed to remain at the office for opening of the bids. Bidders and members of the public who wanted to participate in opening of the bids could do so via teleconference or videoconference.

The other considerations that had to be made are the preconstruction, homeowner face-to-face meetings and multiple times where contractor and operator will be side-by-side. SO, how does one work safely and keep our new members, contractors, utility locators and operators safe during this COVID-19 pandemic?

These challenging times are a stress test for everyone, and a litmus test for our values as an organization. Its about how you lead people through these unprecedented times. This is a defining opportunity to practice courageous leadership. This is the time to lean in and stand strong. This is when values truly matter. It is a time for all of us to show that we don't just sell something or make something – we stand for something. We care deeply about helping workers, customers, and communities. The companies that match their actions to their values will undoubtedly be the successful ones that stay safe.

There are guidelines provided by the Centers for Disease Control and Prevention (CDC) urging the general public to wear "cloth face coverings" in public settings where other social distancing measures are difficult to maintain. Although the CDC recommendation is for voluntary use, an employer could be compelled to require certain employees to wear masks. If employees are considered "medium risk" for COVID-19 exposure because, for example, they have frequent contact with individuals within six feet, then using a mask may be required.

"Wearing a mask could be viewed as a form of administrative control and part of the employer's obligation to provide a safe workplace;" however, it's just awkward to not shake someone's hand when meeting and then not having the ability to see a friendly smile under that mask. We have never experienced anything like this in our lifetime and maybe feeling awkward will help keep us on our toes until such time a vaccine is available.

During these times, Kingbrook Rural Water System, Inc., will be adhering to the CDC guidelines and anytime we are within six feet from anyone on our Oldham, SD project, you will see our staff utilizing PPE (personal protective equipment), not shaking hands and remaining steadfast in our mission to keep ourselves and others safe. **It is simply, the right thing to do!** 





Mid-Dakota Rural Water System Annual Water Quality Report January 1, 2019 - December 31, 2019

#### Water Quality

Last year, the Mid-Dakota Rural Water monitored your drinking water for possible contaminants. This report is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

#### Water Source

We serve more than 6,066 customer accounts, or a population greater than 32,000, an average of 5,110,000 gallons of water per day. We get our water from the Oahe Dam on the Missouri River which is a surface water source. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Mid-Dakota Rural Water public water supply system is medium.

For more information about your water and information on opportunities to participate in public meetings, call (605) 945-0437 and ask for Bill Sarringar.

#### **Additional Information**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturallyoccurring minerals, and can pick up substances resulting from the presence of animals or from human activity.

#### Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile

organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food & Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants can be obtained by calling the EPA Safe Drinking Water Hotline at 800-426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Mid-Dakota Rural Water public water supply system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water, you



may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

#### **Detected Contaminants**

The table below lists all the drinking water contaminants that we detected during the 2019 calendar year. The presence of these contaminants in the

water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2019. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

## 2019 Water Quality Test Results

## 2019 TABLE OF DETECTED CONTAMINANTS FOR MID-DAKOTA RURAL WATER (EPA ID 2175)

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	ldeal Goal	Units	Major Sources of Contaminant
Copper	0.6	0	07/31/19	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	2	0	08/05/19	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	ldeal Goal (MCLG)	Units	Units Major Sources of Contaminant	
Alpha Emitters	4	ND - 4	09/27/16	15	0	pCi/l	Erosion of natural deposits.	
Atrazine	0.260	ND-0.260	07/22/19	3	3	ppb	b Runoff from herbicide used on row crops.	
Fluoride	0.45	0.39-0.45	11/06/19	4	4	4 ppm Erosion of natural deposits; water additive which promotes strong teeth; discharge fertilizer and aluminum factories.		
Haloacetic Acids (RAA)	43.53		10/23/19	60	0	<ul> <li>by ppb By-product of drinking water chlorination. Results are reported as a running annua average of test results.</li> </ul>		
Total Trihalomethanes (RAA)	72.1		10/23/19	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.	

Please direct questions regarding this information to Mr. Bill Sarringar with the Mid-Dakota public water system at (605) 945-0437.

## 2019 TABLE OF DETECTED UNREGULATED CONTAMINANTS FOR MID-DAKOTA RURAL WATER (EPA ID 2175)

The U.S Environmental Protection Agency (EPA) is required to test for possible contaminants in your drinking water every five years. These contaminants are not regulated and acceptable levels have not been set by EPA. As a means of informing the public, The detected levels of these unregulated contaminants are listed below.

Substance	Level Detected	Units	Date Tested	Range
Bromide	32.194	ug/L	10/23/19	32.194-32.194
HAA5	55.841	ug/L	10/23/19	51.491-55.841
HAA6Br	8.947	ug/L	10/23/19	8.679-8.947
HAA9	64.463	ug/L	10/23/19	3846.6-3846.6

For more information on the unregulated contaminants, go to: https://www.epa.gov/dwucmr or contact the Safe Drinking Water Hotline at (800) 426-4791 http://water.epa.gov/drink/contact.cfm.

## **TERMS & ABBREVIATIONS USED IN TABLES**

Action Level (AL) – the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Running Annual Average (RAA)** – Compliance is calculated using the running annual average of samples from designated monitoring locations.

#### UNITS

**ppb** – parts per billion, or micrograms per liter (ug/l)**ppm** – parts per million, or milligrams per liter (mg/l)**pCi/l** – picocuries per liter(a measure of radioactivity)**ug/L** – micrograms per liter or parts per billion (ppb)



**Mid Dakota Rural Water System, Inc.** 608 W. 14th St., P.O. Box 318 Miller, South Dakota 57362-0318

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# WATER MATTERS Natural Springs

A spring is a place where water moving underground finds an opening to the land surface and emerges. In most cases, the water is otherwise trapped, or confined, in an aquifer, so when an opening to the surface is encountered, the 'escaping' water issues forth in a continuous and substantial flow. In other instances, the spring flow may be quite small, resulting in no more than a continuously (or seasonally) wet spot on the landscape.

Given the importance of water, natural springs have long been the focus of human activity. In areas with limited water resources, a spring represented a critical resource, and often became the

focal point around which a community developed. A variety of natural springs are found around the outer perimeter of the Black Hills that provide water to various communities and activities. Cleghorn Springs on the west side of Rapid City has been a primary water source for the community since it's establishment. In Spearfish, spring water provides the foundation for both the historic D.C. Booth and current McNenny Fish Hatcheries.

Occasionally, the spring water emerges from heated rock underground, giving rise to 'hot springs.' In the City of Hot Springs in the southern Black Hills, such warm water springs have formed the basis for both medicinal and recreational activities for over a century.

While the natural springs around the Black Hills tend to draw the most attention, they are also found in the east. They mostly occur when water that is working its way down through the earth encounters a barrier. No

<image>

longer able to move down, the water moves laterally and can be found emerging along the flanks of hills and river valleys. At Sica Hollow State Park in Roberts County, springs mark the boundaries between the relatively porous glacial sands and clayey till and bedrock, emerging along the side of the Coteau des Prairies highland. Although most of these springs have fairly modest outputs, a series of springs just west of the Town of Twin Brooks provides most of the water for the City of Milbank.

In addition to Hot Springs, several other South Dakota communities are named for these water features, such as Valley Springs in eastern Minnehaha County, Springfield along the Missouri River in Bon Homme County and Wessington Springs in Jerauld County.



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