



Water Development Association, Inc.

Quality On Tap!

July 2020 | Volume 16, Issue 1

**WATER UTILITIES
SHOULD FOCUS ON NON-
REVENUE WATER**

**WATER FOR AGRICULTURAL
DEVELOPMENT REQUIRES
THOUGHTFUL PLANNING**

LEAD SERVICE LINES

FROM THE MANAGER

Angie Hammrich, General Manager
WEB Water Development Association, Inc.



As I write this, I cannot help but think how different our world was a year or even six months ago. The issues that Rural Water Systems are dealing with are issues that have strayed outside our normal plans and procedures. WEB Water is here for our members, even though our office is closed to walk-in traffic, we continue our day to day operations in a manner to keep employees safe. So, as we continue to move forward we are adhering to the social distancing policies. As you see crews in the field please keep at least six feet of separation and we will do the same. COVID-19 is a very fluid situation and WEB Water will continue to update our working environment in order to safely keep the water flowing to our members.

Even during this difficult time, we are still able to continue to move forward with our construction projects. Work has begun on the Redfield Booster Station. The Water Treatment Plant Expansion is currently in the design phase. The Moratorium Improvements project is also in the design phase which includes:

- 13.5 miles of parallel ductile iron pipe from our intake on the Missouri River to the intersection of Highway 83 and Highway 12
- Two million gallon elevated storage tank
- Moratorium and low capacity improvements involving 80-90 miles of pipe and booster stations throughout the system

WEB Water's 2020 "Sieh, Westby Zemlicka, Montgomery, Hohn" High School Scholarship Recipients include Sarah Aman, Warner High School; Grace Beyers, Ipswich High School; and Hailey Boekelheide, Northwestern High School. Each recipient will receive \$1,000 to use to further their education. They are featured in this issue of *Quality on Tap* (see page 3). Congratulations to all 2020 Seniors during this unprecedented time!

PAYMENT OPTIONS

There are four convenient ways for WEB Water members to pay their bills:

- 1) Mail your payment. Don't forget to include your billing/meter read stubs (the portion you detach from your billing statement) with your check even if you are on automatic read. If you have more than one account, please return all stubs.
- 2) Drop off your payment at our office. There is a drop box next to the front door of the WEB Water building for 24 hour convenience.
- 3) Sign up for ACH payments. Call the office for more information.
- 4) Pay your bill online at www.webwater.org under the "Customer Login" tab located at the top right. If you need help registering, call the office for assistance.

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(1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. This institution is an equal opportunity provider.



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Eric Hansen, Construction Manager

Office Hours: 8 a.m. – 4:30 p.m., Mon – Fri

Office Telephone: 1-605-229-4749

Toll Free: 1-800-658-3957

Fax: 1-605-229-4492

E-mail: office@webwater.org

Website: www.webwater.org

2020 WEB WATER SCHOLARSHIP RECIPIENTS



GRACE BEYERS

Roscoe, SD

Daughter of Chad and Rebecca Beyers

Graduated from Ipswich High School and plans to attend SDSU majoring in Nursing with a minor in Human Development and Family Studies.

*Dear WEB Water,
Thank you for choosing me as a recipient for this scholarship this year. I appreciate the opportunities this scholarship will provide me as I continue my education in the fall at South Dakota State University.*

Sincerely,

Grace Beyers



SARAH AMAN

Aberdeen, SD

Daughter of Patrick and Lynn Aman

Graduated from Warner High School and plans to attend SDSU majoring in Electrical Engineering with a minor in Computer Science.

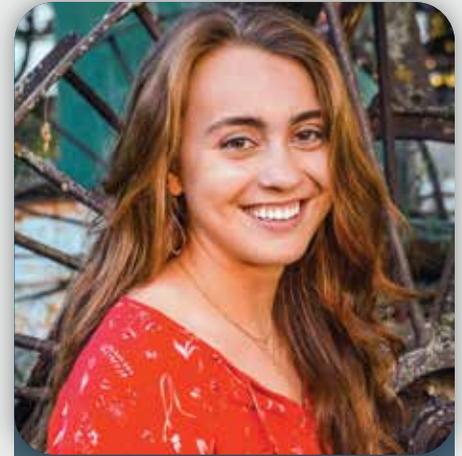
Dear WEB Water,

I am writing to thank you for awarding me your very generous WEB Water scholarship. I was very happy and appreciative to learn that I was selected as the recipient of your scholarship.

I am very passionate about clean energy and STEM education for girls and women. Once I complete my degree I plan to stay here in South Dakota, working to increase access to renewable energy in rural areas and working to create programs to encourage women and girls to pursue an education in the fields of science, technology, engineering, and math.

By awarding me the WEB Water Scholarship, you have lightened my financial burden, allowing me to focus more on the most important aspect of school, learning. Your generosity has inspired me to help others and give back to the community. I hope one day I will be able to help students achieve their goals just as you have helped me.

Sincerely, Sarah Aman



HAILEY BOEKELHEIDE

Northville, SD

Daughter of Chad and Kris Boekelheide

Graduated from Northwestern High School and plans to attend University of Mary in Bismarck, ND, majoring in Social Work and Psychology and minoring in Catholic studies.

Dear WEB Water,

I want to sincerely thank you for honoring me as the recipient of a \$1000 scholarship. This financial assistance is much appreciated, as it allows me to focus more of my time towards my studies. Growing up on a farm near Northville, South Dakota, I am especially appreciative of all this organization has done in its 30 plus years of delivering clean water to its customers. Thank you so much for your generosity and support, and for taking the time to consider and select my application.

Sincerely,

Hailey Boekelheide



YOUR TAP WATER IS SAFE TO DRINK

IS DRINKING TAP WATER SAFE?

According to the Centers for Disease Control (CDC), The World Health Organization (WHO), and the Environmental Protection Agency (EPA), the COVID-19 virus has not been detected in drinking water. Conventional water treatment methods that use filtration and disinfection, such as those in most municipal drinking water systems, should remove or inactivate the virus that causes COVID-19.

IS TAP WATER SAFE TO USE FOR HAND WASHING?

EPA recommends that Americans continue to use and drink tap water as usual. According to the CDC, washing your hands often with soap and water for at least 20 seconds helps prevent the spread of COVID-19.

DO I NEED TO BUY BOTTLED WATER OR STORE DRINKING WATER?

EPA recommends that citizens continue to use and drink tap water as usual. At this time, there are no indications that COVID-19 is in the drinking water supply or will affect the reliable supply of water.

DO I NEED TO BOIL MY DRINKING WATER?

Boiling your water is not required as a precaution against COVID-19.

WHAT SHOULD I DO IF I'M CONCERNED ABOUT MY DRINKING WATER?

The World Health Organization (WHO) EXIT has stated that the, "presence of the COVID-19 virus has not been detected in

drinking-water supplies and based on current evidence the risk to water supplies is low."

Homeowners that receive their water from a public water utility may contact their provider to learn more about treatments being used. Treatments could include filtration and disinfectants such as chlorine that remove or kill pathogens before they reach the tap.

WHAT IS EPA'S ROLE IN ENSURING DRINKING WATER REMAINS SAFE?

EPA has established regulations with treatment requirements for public water systems that prevent waterborne pathogens such as viruses from contaminating drinking water. These treatment requirements include filtration and disinfectants such as chlorine that remove or kill pathogens before they reach the tap. Additionally, the World Health Organization (WHO) EXIT notes that, "conventional, centralized water treatment methods which utilize filtration and disinfection should inactivate COVID-19 virus."

The EPA continues to coordinate with federal partners, including the Centers for Disease Control and Prevention (CDC), and continues to provide technical assistance and support to states, as appropriate.

References

<https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater>

<https://www.cdc.gov/coronavirus/2019-ncov/php/water.html>

Water Utilities Should Focus on NON-Revenue Water

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

According 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 non-revenue 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

1.7 trillion gallons are lost per year – costing more 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 Dakotans are fortunate that we have a good track record of compliance and a good base of common sense 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.

For anyone interested in starting up a new agricultural operation, or expanding an existing facility, identifying an adequate and available water source is critical.

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

aquifers, limiting or at times outright 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

At the same time, given the critical nature of this resource, limitations are often placed on activities that might create a

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

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, 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 county-by-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 large-scale 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 its 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.

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.

LINCOLN COUNTY RURAL WATER SYSTEM

In 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 non-profit 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

RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

Covid-19

Enter to Win \$100

SCRAMBLE ANSWER

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 www.sdarws.com/crossword.html 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.

RURAL WATER

ACROSS SOUTH DAKOTA

WHY COMPANIES DOING THE RIGHT THING MATTERS MORE THAN EVER

Construction 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!**





WEB Water Development Association, Inc. Annual Water Quality Report

January 1, 2019 - December 31, 2019

Water Quality

Last year, the WEB Water Development Association 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 8,000 active meters an average of 6,200,000 gallons of water per day. We get our water from surface water sources. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the WEB Water Development Association public water supply system is medium.

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 naturally-occurring 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. FDA 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (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 WEB Water Development Association 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 for drinking or cooking. If you are concerned about lead in your 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 <http://www.epa.gov/safewater/lead>.

Detected Contaminants

The tables below list 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 Table of Detected Regulated Contaminants for WEB Water Development Association, Inc. (EPA ID 1089)

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.6	0	07/25/19	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	2	0	07/22/19	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Combined Radium	1	ND - 1	05/23/16	5	0	pCi/l	Erosion of natural deposits.
Fluoride	0.48		10/02/19	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	21.10		10/28/19	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Nitrate (as Nitrogen)	0.4		08/21/19	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total trihalomethanes (RAA)	10.06		10/28/19	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 Clayton Larson with the WEB Water Development Association, Inc. public water system at 605-229-4749.

TERMS & ABBREVIATIONS USED IN TABLES:

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.

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

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.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU

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

UNITS:

pCi/l – picocuries per liter (a measure of radioactivity)

ppm – parts per million, or milligrams per liter (mg/l)

ppb – parts per billion, or micrograms per liter (ug/l)

WEB Water Development Association, Inc.

PO Box 51

Aberdeen, SD 57402-0051

605-229-4749 | www.webwater.org

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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 its 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



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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East Dakota Water Development District
132B Airport Drive • Brookings, SD, 57006
(605) 688-6741 • <http://eastdakota.org>