



BDM
RURAL WATER SYSTEM

Quality On Tap!

July 2021 | Volume 17, Issue 1



SD RIPARIAN BUFFER INITIATIVE

**SD BREWERY USES BIG SIOUX RIVER
WATER IN ITS NEW CRAFT BEER**

MARCH 29TH ANNUAL MEETING FORMAT CHANGED - SEE PAGE 3 FOR DETAILS

FROM THE MANAGER

Rodney Kappes
Manager, BDM Rural Water System, Inc.



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CONTACT INFORMATION

PO Box 49 | Britton, SD 57430

Phone: (605) 448-5417

Fax: (605) 448-2124

www.bdmruralwater.com

GREETINGS FROM THE TEAM AT BDM:

It appears the planting season is off to a great start, with progress being made daily, with limited weather interruptions. As of the day of this writing, the water demand has increased significantly, and we expect this to continue for the next six to eight weeks. The investment and upgrades made to the system over the past three to four years has increased our ability to deliver more water to areas that had the most challenges. We continue to monitor the system, evaluate system additions and improvements, and discuss and assess long term demand trends. Your system continues to grow with higher peak water demands. We encourage users to evaluate their own on-site storage for emergencies and for those peak time needs. BDM can have peak demand rise close to 50% during the spring spraying season which can be lessened with more on farm storage capacity. Building a system to meet peak capacity, while having significant excess capacity for the remainder of the year is a balancing conversation the board, management, and the rest of the team discuss frequently. There is a cost to build higher peak demand capacity which ultimately is reflected in water usage rates.


The water industry is experiencing some of the same supplier issues as other industries. Currently we can not buy PVC pipe as most of the resin plants are not back up and running, primarily from the Texas winter storms. This has delayed our additional pipeline construction projects temporarily and may for the rest of 2021. Our suppliers are telling us that supply may not be available until this winter. Then it may take some time before supplies get back to a more normal situation. This situation is currently affecting the ability to complete new user hook up requests, also.

Due to the pipeline shortage situation, the board decided to move forward with other planned capital expenditure items for 2021. One of those items was operator pickup replacement. We have purchased new pickups, with service bodies to replace several of our pickups that have 175,000 to 195,000 miles on them. The recent and constant repair bills on the existing pickups were becoming a major expense item. The new pickups are white with service bodies, versus the traditional blue vehicle you have been accustomed to seeing in the country.

We continue to work on our meter upgrade/replacement project as time allows. For those of you who have the meter in the house, you may get a call from one of our operators to set up a time for them to come inside the home to replace the meter. We will only do this when the customer is present. Thanks for working with the operators to allow them to complete this task.

I want to thank the staff for their continued commitment to our customers and BDM. When leaks happen and the leaks are affecting customers, our staff quickly adjust their personal schedules to deal with the situation at hand. The limiting factor for BDM to react quickly is finding contractors on weekends that can round up their teams, and deal with the situation.

We thank you for your business, please be careful during planting season, and God Bless.

 **STATEMENT OF NON-DISCRIMINATION:** In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

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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.

BDM MEMBERSHIP CORNER

2021 ANNUAL MEETING NOTES

Due to the ongoing pandemic, the 41st Annual Meeting was held on Monday, March 29th in a drive-up format. From 3-5 pm members drove up to the door and were greeted by employees. Forty-four voting members signed in and received the 2020 audit results and minutes of last year's meeting. They were given their appreciation gifts and signed up for door prizes.

A short business meeting was held at 6:00 pm. Having had no other petitions filed for the open director positions, incumbents Torre Raap & Kevin Deutsch were reelected in Districts One & Seven, respectively.

Winners of the door prizes were Gene Larson, Julie Hagen, Phyllis Roehr, and Jerome Buhl.

The BDM Rural Water System offices will be closed:

**MONDAY, JULY 5TH
INDEPENDENCE DAY**

**MONDAY, SEPTEMBER 6TH
LABOR DAY**

As always, if you have an emergency, please call the office at 605-448-5417 or toll free at 1-800-448-9236. You will then receive a message with the telephone number of the employee on call. Please call that person for assistance in an emergency only.

BE A LEAK SEEKER!

With over 2,300 miles of pipeline, occasional leaks are going to happen in the BDM system. Not only are leaks an inconvenience for our members, they are a costly expense to your water system. If you see a possible BDM leak, please call the office to report it right away. The first caller to report a verified leak will receive a \$30.00 credit on their next water bill.

BDM RURAL WATER SYSTEM, INC. RATE SCHEDULE (EFFECTIVE JANUARY 1, 2020)

General User Rates:

Debt Service monthly payment: \$35.00 per hookup per month for member-read meters, \$36.00 for cellular meters
 \$6.70 per thousand gallons for the first 2,000 gallons used per month
 \$5.70 per thousand gallons for the next 5,000 gallons used per month
 \$4.70 per thousand gallons for the next 8,000 gallons used per month
 \$3.70 per thousand gallons for over 15,000 gallons used per month

Add \$1.00 to the Monthly Totals Below if Hookup has a Cellular Meter

Gallons Used Per Month	Monthly Total	Gallons Used Per Month	Monthly Total
1,000	41.70	25,000	151.50
2,000	48.40	30,000	170.00
3,000	54.10	35,000	188.50
4,000	59.80	40,000	207.00
5,000	65.50	45,000	225.50
6,000	71.20	50,000	244.00
7,000	76.90	55,000	262.50
8,000	81.60	60,000	281.00
9,000	86.30	65,000	299.50
10,000	91.00	70,000	318.00
11,000	95.70	75,000	336.50
12,000	100.40	80,000	355.00
13,000	105.10	85,000	373.50
14,000	109.80	90,000	392.00
15,000	114.50	95,000	410.50
16,000	118.20	100,000	429.00
17,000	121.90	125,000	521.50
18,000	125.60	150,000	614.00
19,000	129.30	175,000	706.50
20,000	133.00	200,000	799.00

ALL USERS:

No water is included in the debt service payment. All water used is in addition to the monthly debt service payment. Payments are due by the 10th of the month. A \$10.00 fee applies to all payments received after that date. Service is subject to disconnection if payment is not received by the 15th.

AFTER HOURS & WEEKENDS WATER EMERGENCIES:

Please call the BDM Office at 605-448-5417 or 1-800-448-9236 & a message will direct you to the employee on call.

Discover the DEX



For 135 years, the South Dakota State Fair has been a place to celebrate youth and agriculture. Since the late 1970s, the Open Class Beef Complex has been a part of that celebration. It's held many memories and has been an important part of the culture of the South Dakota State Fairgrounds.

On October 31, 2020, Halloween night, that all changed with a fire that destroyed the 96,000 square foot building.

Out of adversity comes opportunity. It is our generation's time to bring this vision to life. **Discover the DEX.** Help us build **the DEX: Dakota Events Complex** - the new multipurpose livestock and equestrian complex at the South Dakota State Fairgrounds.

- 200,000 square foot, one-of-a-kind, livestock and equestrian facility that will set a new standard for hosting local and national events.
- 7,000 seats will hold spectators from around the globe, as they witness events brought to South Dakota never thought possible.
- The capacity to host two full size equestrian arenas, larger livestock shows, concerts, auto thrill shows, and events throughout the year make this complex unmatched.

The footprint will encompass the area abandoned by the Beef Complex, that is scheduled to be demolished by February of 2021, and replace the 37,000 square foot Sheep Barn, that has long outlived its useful life.

For the annual South Dakota State Fair, the capacity is expected to be 2,000 head of show cattle. Open class and 4-H beef will call this new livestock facility home. A commitment will be made to work with sheep and goat exhibitors to improve and modify the existing 4-H Livestock Complex to make sure it is done right and exceed their expectations as they move to this new home.

This will allow for species specific barns across the grounds, a trend favored by exhibitors, and address livestock transportation safety issues on the fairgrounds.

The estimated cost of \$19 million will be a product of all of us pulling this **VISION** together.

Governor Kristi Noem is asking the legislature for \$12 million and insurance from the fire will bring in \$3 million. **THIS IS WHERE THE STATE OF SOUTH DAKOTA NEEDS YOU.**

Donate to the DEX. It is a "big ask" but it is time for us to rally together and bring a pool of \$4 million dollars, still needed to complete this vision, to the table. The task force lead by the South Dakota State Fair Foundation is asking for you to help us reach that mark now so we can meet the deadline of a **Grand Opening at the 2022 South Dakota State Fair.**

the DEX: Dakota Events Complex VISION TIMELINE

DEMOLITION

Winter of 2021

DESIGN

Spring of 2021

GROUNDBREAKING

2021 South Dakota State Fair

GRAND OPENING

2022 South Dakota State Fair

PLEDGE FORM

Date _____

Donor Information:

Name(s): _____

Address: _____

Phone: _____

E-mail Address: _____

Gift Information:

In recognition of the project to construct the new **'the DEX: Dakota Events Complex'**, I / We intend to contribute the sum of \$ _____

Enclosed is my outright gift to the South Dakota State Fair Foundation capital campaign with the initial payment to be made as follows:

\$ _____ on or before _____, 20 _____.

Thereafter, payments of \$ _____ will be made:

- Annually I / We would like to have a reminder sent, annually, in _____ (month).
- Quarterly
- Monthly *Monthly Payments are made using Electronic Fund Transfer (EFT). A campaign representative will contact you with further information.

Donor Recognition:

Please print name or business name as you wish to be recognized:

- This is a gift in honor of / in memory of (please circle which is appropriate):
- I / We wish to remain anonymous.

Please make checks payable to **South Dakota State Fair Foundation**.

Contributions to the DEX are tax deductible as provided by law.

Pledge completed by (date): _____

Donor's Signature: _____



Existing Sheep Barn



Existing Sheep Barn



1060 3rd St. SW | Huron, SD 57350 | 605-353-7340
www.sdstatefairfoundation.com

Through the fire came a vision.

Discover the DEX

SD BREWERY USES BIG SIOUX RIVER WATER IN ITS NEW CRAFT BEER

By **Rebekah Tuchscherer**

In the land of 10,000 lakes, Matt Hastad spent his childhood days fishing and skiing on the open water.

When he moved to Sioux Falls, friends still would often ask him to go fishing on the Big Sioux River.

The only catch? He couldn't eat any fish he caught.

Sometimes called the "Big Sioux-er" by locals, the Big Sioux River has a history of pollution and water quality issues in the area. The 2020 Department of Environment and Natural Resources water quality report listed E. coli and total suspended solids — which can range from sediments to floating algae — as the most prevalent problems in the river basin this past year.

"We have this amazing natural resource that can be such a major source of tourism ... " Hastad, a co-owner of Remedy Brewing Co. in Sioux Falls, said. "(It's) part of the city's identity."

That's what drove him to collaborate with Friends of the Big Sioux River on a new beer with the intention of highlighting local water sources and their importance in the community.

A key ingredient? Surface water from the Big Sioux River, which cuts through Watertown.

Yeah. You read that right. But don't worry, there won't be any sand in your beer. In fact, it'll be cleaner than the water from any kitchen faucet.

On average, it takes 7 gallons of water to brew 1 gallon of beer.

Between the brewing, cooling and cleaning, Hastad said the beer-making process uses more water than the average beer lover might think.

"People often think water or beer," Hastad said. "They don't actually think about how much water is in beer."



Before the brewing could start, Friends of the Big Sioux River volunteers met on April 3rd and pumped 300 gallons from the river where it meets 26th Street in Sioux Falls and took it back to Remedy for purification.

ISG, a local engineering firm, lent a reverse osmosis system to the collaborators to clean the water. By the time all was said and done, only about 150 gallons of purified water were left.

"There was a lot of material we had to clean out," Travis Entenman, managing director for Friends of the Big Sioux, said. "You naturally have about a 50% loss."

Entenman noted the Big Sioux River water originally had more than 600 parts per million in total dissolved solids. Tap water typically

has between 100 and 200 parts per million. By the end of reverse osmosis, the river water tested between 15 and 100 parts per million.

From there, Remedy brewers took over and have since been turning that water into Kolsch, a light German-style beer.

"I just hope that (people) understand how important clean water is outside of drinking water and how important it is for the things they love," Entenman said. "People really like beer."

Where to get one

The Big Sioux Brew is available at Remedy's 8th and Railroad location in Sioux Falls.

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SOUTH DAKOTA RIPARIAN BUFFER INITIATIVE

By Hunter Roberts, DANR Secretary

“**W**ater is the driving force of all nature.” Leonardo Da Vinci’s words are as true today as when he said them over 500 years ago, and I believe they will continue to ring true 500 years from now.

All South Dakotans have a vested interest in protecting our water resources – it’s not just a natural resource issue; it’s not just an ag issue; it’s an issue for everyone. We need to work together to implement practical and effective solutions. That is why I am excited to write to you about the South Dakota Riparian Buffer Initiative. Riparian buffers have a proven record of improving water quality (see the before and after photos from the Central Big Sioux Project). They also provide valuable habitat, stabilize stream banks, add forage for livestock, and reduce production costs on marginal crop lands. Riparian buffers are an excellent conservation practice. They just aren’t currently used enough to move the “water quality” needle in our impaired

watersheds. It’s time for a change, which is why we’re incentivizing development of riparian buffers.

Through the Initiative, we will establish more than 3,000 acres of new riparian buffers across the state making measurable water quality improvements in South Dakota’s impaired watersheds. This will not happen overnight, but together we can get it done.

The first step, which we have already accomplished, is to change the enrollment requirement from annual to once every 10 years and increase the existing buffer strip property tax incentive from 40 percent to 50 percent. This is more attractive to landowners financially and – from a paperwork standpoint – more manageable for county tax officials. Working together, we passed House Bill 1042 with unanimous support from the legislature – these needed changes take effect July 1, 2021.

Next, the Department of Agriculture and Natural Resources



and the Department of Game, Fish, and Parks, along with a diverse group of partners (the working group) from across the state, will acquire and pool dollars from multiple funding sources to establish a voluntary, state riparian buffer program. The program will incentivize buffer strips with annual cash payments to landowners based on Conservation Reserve Program (CRP) county rental rates for filter strips on croplands and marginal pastures lands.

However, we do not want to duplicate CRP, which is a great program on its own; we want to specifically target impaired waterbodies to maximize water quality improvements. To do this, the working group identified and will continue to identify priority areas to target enrollments. In these areas, rental payments will be based on ten-year contracts at 100 percent of the CRP rate for cropland or pastureland. Rental payments on pastureland will include funding for fencing and alternative water sources. Outside of the priority areas, rental payments will be based on ten-year contracts at 50 percent of the CRP rate for cropland or pastureland with the opportunity for additional incentives provided by local sponsors as available.

As I have said, I want to see measurable water quality improvements, and I want you to see it too, so monitoring and documenting success is essential to the initiative.

Throughout the process, my team, with support from the working group, will collect and evaluate water quality samples and use proven modeling techniques to evaluate program success or failure. This information will be made available to the public.

Efforts on the Initiative are well underway. The next step is to secure program funding by leveraging state and local dollars to secure federal dollars available through the US Department of Agriculture, Natural Resource Conservation grant programs. We are working on those applications now. Our goal is to begin enrolling landowners later this year, so be on the lookout for more information on eligibility requirements and how to enroll. If you have questions, please contact us at 605.773.3623 (ask for Bill Smith) or email at SDRCF@state.sd.us.

Finally, thank you to all our partners who are working with us to make the Riparian Buffer Initiative a success. Folks from across the state including our legislators, Ag groups, water development districts, Friends of the Big Sioux, conservation districts, federal partners, Pheasants Forever, Izaak Walton League, planning districts, and Ducks Unlimited have stepped up to get this done.

I am very excited about the Initiative and can't wait to see it underway.

WEB WATER DEVELOPMENT ASSOCIATION

WEB Water Development Association, Inc. is located in Aberdeen, SD and was formed in December 1975 by community leaders from Walworth, Edmunds and Brown counties who were looking for ways to improve their drinking water. The acronym for WEB was taken from the names of these three counties. Within a year of development, the interest had grown to six counties, and within four years the project had grown to 10 counties. The WEB Water project was authorized by Congress on September 20, 1980 as part of a settlement of the Oahe Irrigation Project with support from President Jimmy Carter. It took two more years of hard work, lobbying and negotiation until Congress reauthorized the WEB Water Project. On September 22, 1983, President Ronald Reagan signed WEB Water into law. The WEB Water Board of Directors then entered into a loan and grant agreement with the U.S. Department of Interior on September 29, 1983, with construction work beginning on October 20, 1983. The first WEB customers – the Keith Vojta family, who had been hauling drinking water for their farm home for 14 years – received water on May 26, 1986.

Elected officials who played a major role in the development of WEB Water were US Senator Tom Daschle (D) working with the Carter Administration and U.S. Senator Jim Abdnor (R) working with the Reagan Administration. Other elected officials also involved were Senator Jim Abourezk, Senator Larry Pressler, Congressman Clint Roberts, Senator George McGovern, Governor George Mickelson, and Governor Bill Janklow.

WEB Water now serves more than 8,500 meters with an average of 6,376,500 gallons/day. Besides rural hookups, WEB Water serves 105 town/bulk users and five ethanol plants through 6,800 miles of pipe in Walworth, Edmunds, Brown, Day, Spink, Hand, Hyde, Campbell, Faulk, Potter, McPherson, Beadle, Clark & Marshall counties in South Dakota; Emmons, Dickey and McIntosh counties in North Dakota.

WEB Water is overseen by a nine-person Board of Directors including a Chair, Vice Chairman, Secretary and Treasurer. Each Director can serve a total of three 3-year terms. They

also employ 42 people throughout the WEB Water system.

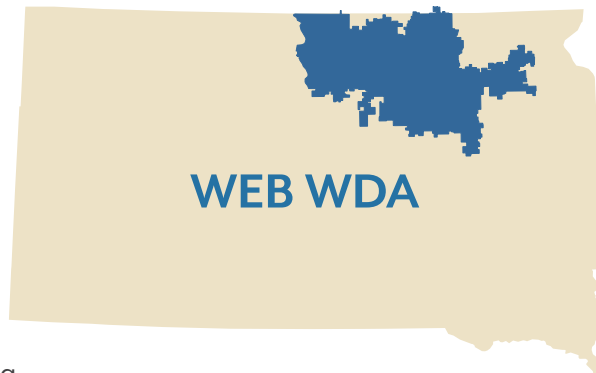
The success of the WEB Water system is an example of what communities can do when they work together. Like the Rural Electric Cooperatives, the development of Rural Water has been grass-roots effort that has served South Dakota well. Hundreds of local leaders and citizen volunteers donated their time, helped sign up their neighbors, attended meetings, served on Steering Committees, served on the WEB Water Board, traveled to Pierre and Washington, DC to present testimony, and

going door-to-door explaining to Congressmen, Senators and federal officials why a rural water system was needed in South Dakota.

Over thirty years ago WEB Water was the first water project of its kind. Funding a regional pipeline project by federal authorization through the Interior Department had never been done before. The

idea of piping Missouri River water through thousands of miles of pipelines to farms, homes and towns seemed outlandish to many in government – and looked almost impossible to many in South Dakota. Because of the precedence WEB Water set, regional water systems are commonplace today. Other South Dakota projects have benefited by the precedent set by WEB Water; Mid-Dakota Rural Water, Lewis & Clark Regional Water, Perkins County Rural Water, West River/Lyman-Jones Rural Water, BDM Rural Water, and Mini Wiconi.

WEB Water continues to grow and expand. In August of 2014, WEB introduced a spin-off water bottling service aptly named WEB Water Bottling Company. This new company offers home and office delivery of 5-gallon water cooler jugs within a 10-mile radius of Aberdeen, SD – with the hope to expand as far as Ellendale, ND and Redfield, SD. They are the first rural water system in South Dakota to offer such a service.





DIRECTORS:

- Bob Schuetzle** – Chairman (*Bulk*)
- Tim Van Hatten** – Vice-Chairman (*Bulk*)
- Lori Goldade** – Secretary (*Brown*)
- Les Hinds** – Treasurer/State Association Director (*Bulk*)
- Craig Oberle** – Director (*Spink, Beadle, Hand*)
- Allan Walth** – Director (*Walworth, Potter*)
- Bob Whitmyre** – Director (*Day, Clark, Marshall*)
- Dick Werner** – Director (*Campbell, McPherson, Emmonds, Dickey, McIntosh*)
- Jeff Stoecker** – Director (*Edmunds, Faulk, Hyde*)

STAFF:

- Angie Hammrich** – General Manager
- Clayton Larson** – Water Treatment Plant Manager
- Shane Phillips** – Operations Manager
- Eric Hansen** – Construction Manager

STATISTICS:

- Hookups:** 8,500
- Miles of Pipeline:** 6,800
- Water Source:** Oahe Reservoir
- Counties Served:** (SD): Beadle, Brown, Campbell, Clark, Day, Edmunds, Faulk, Hand, Hyde, McPherson, Marshall, Potter, Spink, Walworth.
(ND): Emmons, Dickey, McIntosh
- Towns Served Individual:** Akaska, Andover, Athol, Ashton, Barnard, Bath, Butler, Columbia, Ferney, Frankfort, Glenham, Holmquist, Lily, Lowry, Loyalton, Mansfield, Mina, Miranda, Mound City, Rockham, Turton, Verdon, Zell
- Towns Served Bulk:** Bowdle, Brentford, Bristol, Chelsea, Conde, Cresbard, Doland, Eden, Eureka, Faulkton, Forbes, Frederick, Grenville, Groton, Herreid, Hosmer, Ipswich, Java, Leola, Long Lake, Mellette, Northville, Onaka, Pollock, Redfield, Roscoe, Roslyn, Selby, Seneca, Stratford, Warner, Webster, Wecota, Westport, Wetonka, Zeeland

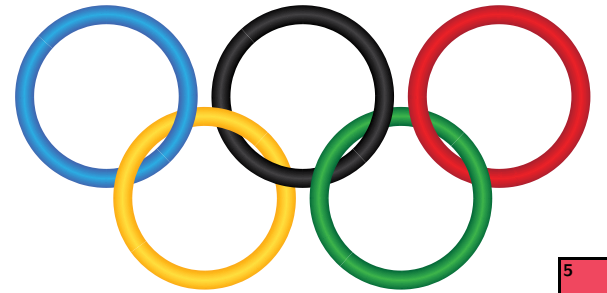
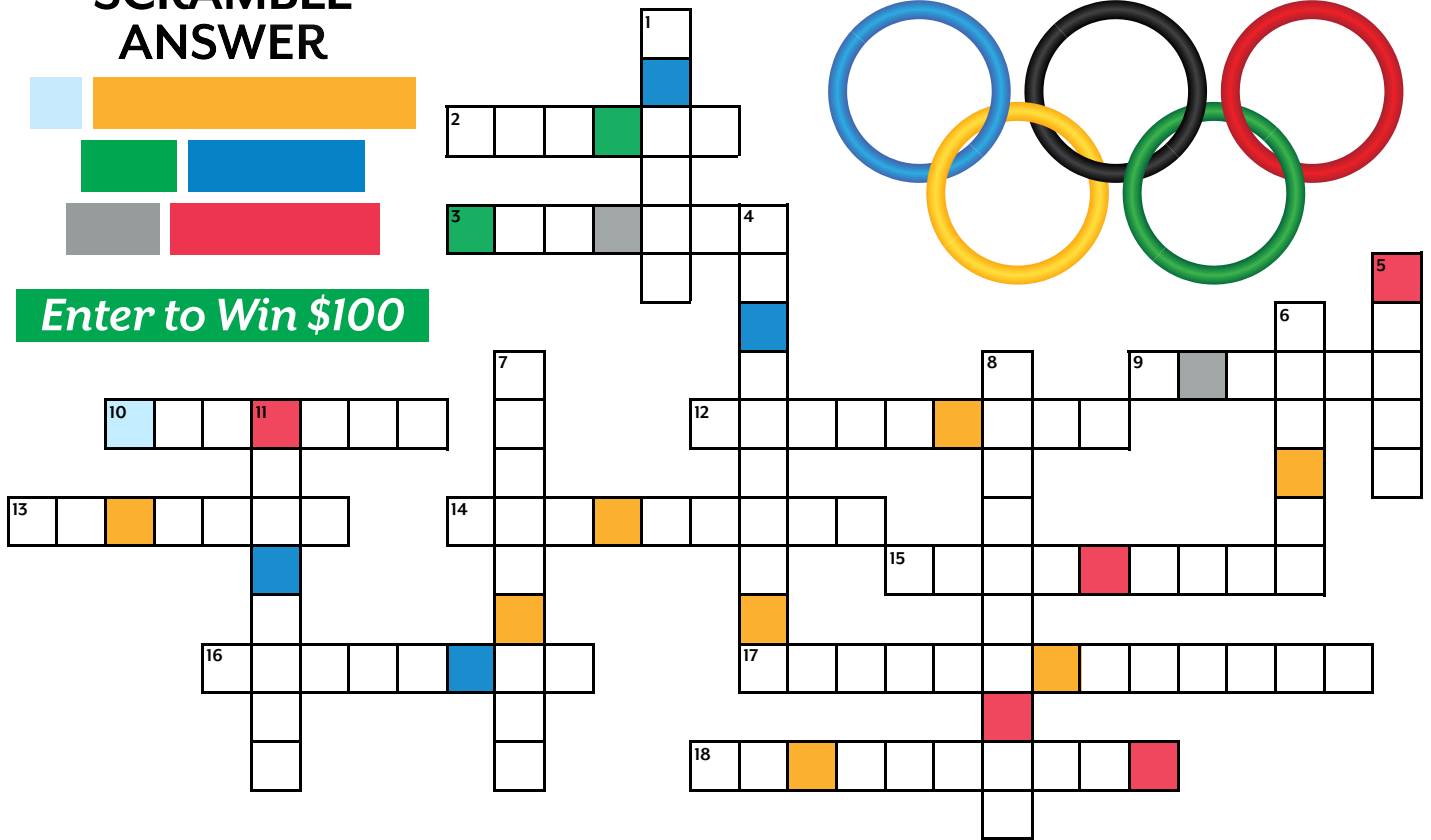
RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

SUMMER OLYMPICS

SCRAMBLE ANSWER



Enter to Win \$100



DOWN

1. Game of love?
4. Exercises developing or displaying physical agility and coordination
5. Football's British relative
6. Plunging head first
7. Swimming, cycling and running
8. Game of digs and spikes
11. Off the wall sport

ACROSS

2. Crew sport using oars
3. Catch a wave - Olympic's newest sport
9. Fighting with fists
10. Robin Hood's mastery
12. Team sport in a pool (2 words)
13. Sword sport
14. Birds fly back and forth in it
15. Win with a pin
16. In which a long run leads to home
17. Tony Hawk's preferred mode of transportation
18. "Springy" event

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 12, 2021 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 Jarret Lee who had the correct phrase of "Hope always rises in spring" for April 2021.

RURAL WATER

ACROSS SOUTH DAKOTA

LOOKING TO BRING MISSOURI RIVER WATER TO RAPID CITY

The most important environmental factor for community settlement has always been water. The greatest challenge that today's community leaders face is ensuring that quality water will be available. The West Dakota Water Development District board has been wrestling with this concept for the past several years. They have reached out to neighboring stakeholders to gauge interest in bringing Missouri River water to the Rapid City area.

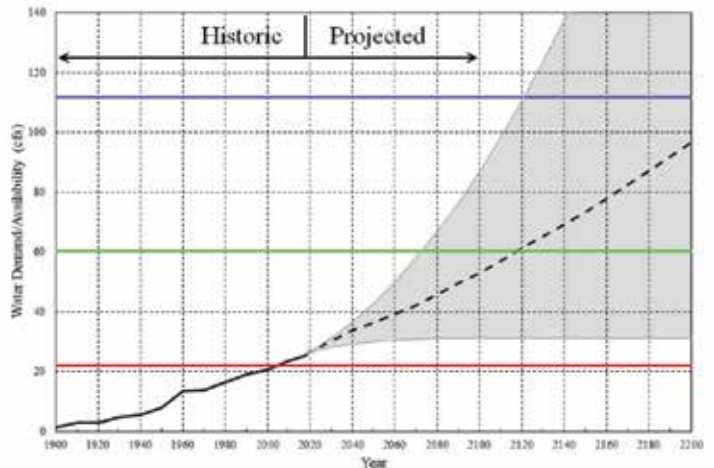
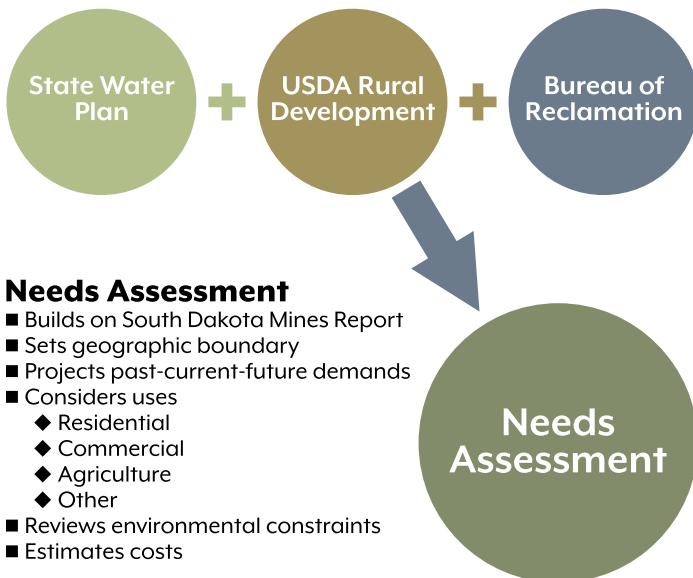
The genesis for their conversation is future use water permit #1443-2. That permit grants 10,000 annual acre-feet (3,258,514,290 gallons) for "future municipal, industrial, commercial, and rural water system use" of Missouri River Water to the West Dakota Water Development District (WDWDD). The district is required to renew the permit every seven years. The last renewal period provided an opportunity for the district to assess the region's potential need for that future water.

WDWDD commissioned a group from the South Dakota School of Mines & Technology to develop a report. The Final Report entitled: Missouri River Water Allotment Study for Future Water User Permit 1443-2 was completed in December of 2019.

The report produced three findings:

1. Local water supplies currently meet demand; the region is not currently in need of new sources
2. Based on projected growth, the area may not be able to meet future water needs
3. The district should retain its future water rights permit.

In addition to the findings, the report suggests potential routes for bringing Missouri River water to the area and provides an estimated cost to do so (in 2019 dollars).



The district started a meeting of stakeholders in the second half of 2020 to look at the viability of developing a pipeline to deliver water to the area. The meeting's topics ranged from the discussion of past regional water system projects to presentations by potential funding entities.

The group has now reached the point of developing a needs assessment. As part of that, they are soliciting water systems that may be interested in partnering on a project that brings Missouri River water to Western South Dakota. They are asking systems to look at their system's water needs will be in 50 years. Projects such as these take decades to come to fruition.

Once the final stakeholders and their needs have been identified, a more realistic cost estimate can be established. Once that step is complete, the group will start pursuing project funding.

The idea to bring Missouri River Water to the Rapid City area is not a new one. In the 1970's Energy Transportation Systems, Inc. (ETSI) planned to slurry coal from the Powder River Basin to coal-burning power plants in Oklahoma, Arkansas, and Louisiana. One of the possible sources of water for ETSI was the Missouri River. That project was eventually canceled in 1984 after stiff resistance from multiple railroad companies.

On the eastern side of South Dakota, Lewis & Clark RWS (L&C) started as a dream in the early 1990s, with over 60 systems being interested. By the time L&C delivered its first drops of water in 2012, the system membership had included twenty systems.

If you would like more information about this group's stakeholder meetings, contact the West Dakota Water Development District. Daniel Mulally is the district manager; he can be reached via email at wdwdd0@outlook.com.



BDM Rural Water System

Annual Drinking Water Quality Report

January 1, 2020 – December 31, 2020

Water Quality

Last year, the Brown-Day-Marshall RWS monitored your drinking water for possible contaminants. These two pages are 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 customers an average of 1,150,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Brown-Day-Marshall RWS public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call 605-448-5417 and ask for Rodney Kappes.

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. 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/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 Brown-Day-Marshall RWS 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 www.epa.gov/safewater/lead.

Detected Contaminants

The table below lists all the drinking water contaminants that we detected during the 2020 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, 2020. 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.

2020 Table of Detected Contaminants for BDM RWS (EPA ID 0882)

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.5	0	07/23/19	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	4	1	07/27/19	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
Fluoride	0.48		11/16/20	4	<4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	5.92		08/17/20	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	3.92		08/17/20	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. Darin Roehr with the Brown-Day-Marshall RWS public water system at 605-448-5417.

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.

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

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

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



PO Box 49
 Britton, SD 57430
www.bdmruralwater.com
 605-448-5417

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WATER MATTERS



Aquifers 102

For most South Dakotans, the water that comes out of your tap started out in the ground and has been drawn from an aquifer. As such, the importance of aquifers to all of us can not be exaggerated. In the last issue (April 2021), we learned what an aquifer is, how water gets into them and how it is drawn from them. Let's touch on a few more key points:

How do we find aquifers?

Because aquifers (water bearing geologic materials) are underground, locating them in any detail often requires the drilling of exploratory (test) holes to see what is down below. Each new test hole in an area helps define where an aquifer might be, and how extensive it is. In some cases, the aquifers are large and expansive, and cover parts of many counties. In others, materials that might function as an aquifer, such as sand and gravel, are found in one test hole, but may not appear in a hole drilled just a few tens or hundreds of feet away.

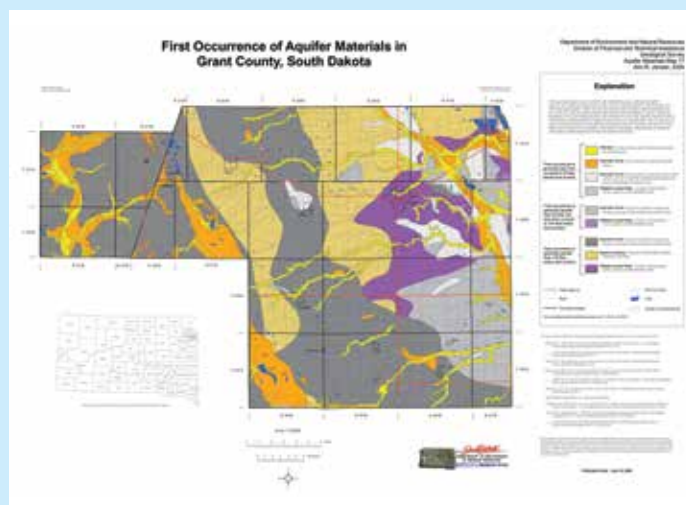
To learn more about an aquifer, wells are sometimes installed after a test hole is completed. These 'observation' wells allow hydrologists

and engineers to measure the amount and level of water in the well, and by inference the aquifer. They can also be used to gather samples of water from the aquifer to assess its suitability for various uses and to monitor changes in water quantity and quality over time.

Where are the aquifers in South Dakota?

In South Dakota, the Geological Survey Program of the Department of Agriculture & Natural Resources has been working to define the State's ground water resources for many years. They have drilled roughly 24,000 test holes to help understand the geology of South Dakota, including the nature and extent of our aquifers. Maps and publications have been prepared that can be used by anyone interested in learning more about these critical resources.

Would you like to know if there are aquifers in your area? The Geological Survey Program has produced numerous reports and maps dealing with the State's water resources. Visit their website, www.sdgs.usd.edu, to find information on aquifer resources in your area.



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