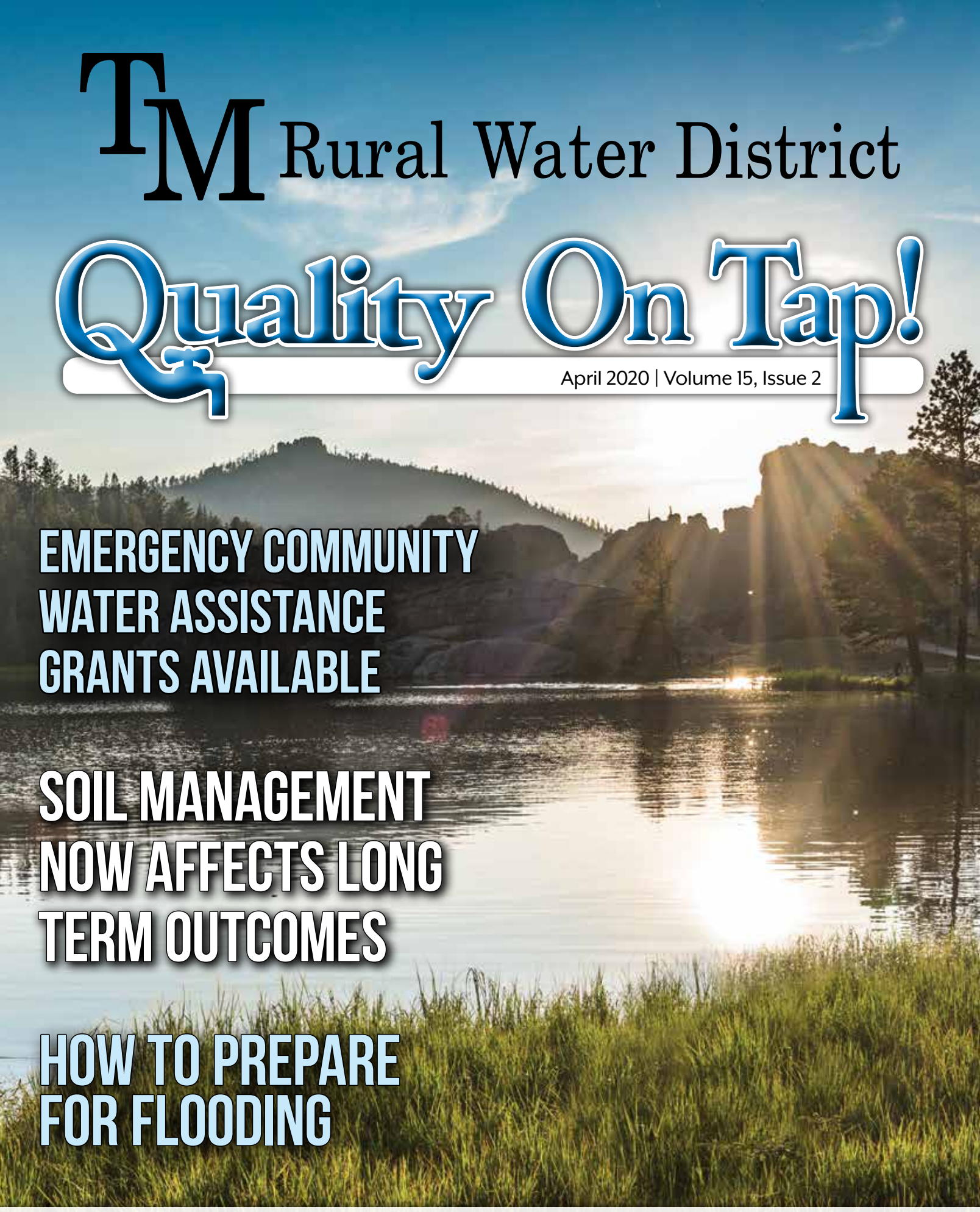

TM Rural Water District

Quality On Tap!

April 2020 | Volume 15, Issue 2

EMERGENCY COMMUNITY WATER ASSISTANCE GRANTS AVAILABLE

SOIL MANAGEMENT NOW AFFECTS LONG TERM OUTCOMES

HOW TO PREPARE FOR FLOODING

FROM THE MANAGER | TM TRIVIA | CONSUMER CONFIDENCE REPORT

FROM THE MANAGER

Jay Jorgensen
Jay.Jorgensen@tmruralwater.com

I think that we are all keeping our fingers crossed that moderate weather will be the norm this year after a very wet year last year. Rain makes corn but too much rain doesn't allow corn to get planted. Here's to hoping that 2020 is a much better year for the farming community.

The wet weather in 2019 didn't just cause problems for farmers but also delayed the installation of water lines throughout the District. Much of what we put in last year was mudded in and some applicants are still waiting to get hooked up to the District because we just couldn't dig as it was too wet. New applications are already starting to come in for this year from those planning to build or from those that have an established rural residence and want to move from well water to rural water. If you know of anyone that is planning to sign up this year you may want to encourage them to call in early as we still have some from last year to get installed.

TM has several large projects that we plan to complete this construction season which include the rehabilitation of two water towers. The first water tower that will be worked on between April and June, is located three miles southeast of Canistota and has a 300,000 gallon storage capacity. This tower will be sand blasted inside and out down to bare metal before being repainted. The 12" steel riser pipe and insulation will also be replaced with a 12" stainless steel pipe and new insulation.

The second water tower that will be worked on June thru August, is located 7 miles northeast of Parker and has a 200,000 gallon storage capacity. This tower will be sandblasted down to bare metal on the inside only as the outside paint will only need to have an overcoat of new paint. The 10" steel riser pipe and insulation will also be replaced with a 10" stainless steel pipe and new insulation.

The price to complete these two projects is around $600,000.00 and will be paid for from cash on hand from the District's Depreciation Fund. With the completion of these two towers and with a little preventative maintenance these towers should not require any major work for another 30 years. The water tower three miles south of Marion was completed at the end of last year and the new paint job can be seen shining for miles on a sunny day.

Construction and maintenance costs continue to rise, but please know that your TM Rural Water District Board of Directors and Staff do our best to save and plan for future maintenance and expansion projects. Our Board believes that there are times when the District must take out long term loans to address issues with the system but the Board also strives to keep our budgets at a measured level in order to avoid long term loans if at all possible. We take care of what we have and do our best to stretch our dollars to the maximum benefit of our water users by working with our engineers and vendors to come up with the most beneficial return on the investments we make in the system.

As always, thank you for choosing TM Rural Water District for your source of clean reliable drinking water.

Annual Water Quality Report

You will find TM's Annual Drinking Water Report on pages 13-15. Every year we are required to publish this report to all water users on our system. The report represents the results of water testing done by the District during 2019 and also gives a breakdown of the District's source waters and treatment process. TM is pleased to report that he District complied with all state and federal drinking water regulations in 2019.

TM Rural Water District
Quality On Tap!

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605-297-3334 / 1-877-242-3420
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OFFICE HOURS

8:00am - Noon & 12:30pm - 4:30 pm
Monday - Thursday
Office is Closed
Friday-Sunday and Holidays

TM Rural Water District Quality On Tap! is published quarterly by TM Rural Water District, PO Box 445, Parker, SD 57053 for its water users

TM Rural Water District CALENDAR

MARCH 23RD
TM Rural Water District Board Meeting in Parker at 7:00 PM

FRIDAY APRIL 10TH
Good Friday Holiday

APRIL 27TH
TM Rural Water District Board Meeting in Parker at 8:00 PM

MONDAY MAY 25TH
Memorial Day Holiday

MAY 28TH
TM Rural Water District Board Meeting in Parker at 8:00 PM

If you have an emergency, please call the office at 605-297-3334.

MONTHLY PAYMENT OPTIONS

Cash, Check, E-Check, Credit Card or Money Order
Automatic Bank Deductions (ACH)

www.tmruralwater.com
(click "Pay Online Now" button)

WATER FACT

Nearly 97% of the world's water is salty or otherwise undrinkable. Another 2% is locked in ice caps and glaciers. That leaves just 1% for all of humanity's needs — all its agricultural, residential, manufacturing, community, and personal needs.

source: www3.epa.gov/safewater/kids/waterfactsoflife.html

TM RURAL WATER DISTRICT'S MISSION

TM Rural Water District's goal is to improve the quality of life in the rural and small community areas of our state. The District is committed to providing the highest quality drinking water possible at the lowest reasonable cost consistent with good business practices. As a water user district, the only other product that we have is the service we provide the users. The District goal is that the service is offered with the highest standards.

TM TRIVIA

In this edition of *Quality on Tap*, be the first person to call Tanya with correct answers to the following questions below at 605-297-3334 to receive $10 off of your next water bill. A second place drawing for $10 off your next water bill will also be taken from those people who call in after the initial winner, so don't give up.

How about some Farming Trivia. Let's test your knowledge of South Dakota's largest industry. Good Luck!

FARMING TRIVIA

1. **What percentage of American Farms bring in less than $10,000.00 in farming income each year?**
   ☐ 10 percent ☐ 25 percent ☐ 50 percent ☐ 99 percent
2. **On average, how many cows can you sustain each year on two acres of forgeable land?**
   ☐ One ☐ Five ☐ Twelve ☐ Twenty-five
3. **Which of these is considered a commodity crop?**
   ☐ Strawberries ☐ Saffron ☐ Almonds ☐ Rice
4. **What are you raising if you operate an ovine farm?**
   ☐ Sheep ☐ Bees ☐ Cattle ☐ Pigs
5. **When a farmer talks about drilling, what is he discussing?**
   ☐ Searching for Oil ☐ Mining ☐ Planting Seeds ☐ Raising Cattle
6. **Which of these critters are you most likely to find in an apiary?**
   ☐ Cows ☐ Apes ☐ Pigs ☐ Bees
7. **Which of these farm products is often inspected using a simple technique called candling?**
   ☐ Beef ☐ Corn ☐ Eggs ☐ Oats

TM Rural Water District employs six full-time employees from three different communities in the areas that we serve. Whenever possible we attempt to buy our supplies and consumables locally and prefer to hire local contractors when the need arises. We are thankful to have the ability to serve the communities and rural areas in which we live and hope that our service will continue to be a benefit to everyone in our District.

OUT AND ABOUT

APRIL

3-4 – JACKRABBIT STAMPEDE RODEO, BROOKINGS

The Jackrabbit Stampede is a National Intercollegiate Rodeo Association approved rodeo that holds all the standard college rodeo events; Bareback Riding, Breakaway Roping, Tie Down Roping, Saddle Bronc Riding, Steer Wrestling, Goat Tying, Team Roping, Barrel Racing and Bull Riding. www.sdstate.edu/jackrabbit-stampede

4-5 – ZONTA CRAFT SHOW, PIERRE

The Zonta Club of Pierre-Fort Pierre is holding its annual Spring Vendor & Craft Show at the Northridge Plaza Mall 1615 N Harrison Avenue, Pierre, SD. The event offers over 50 booths with delicious hand-made foods, artisanal hand-made items and unique products. For more information, visit: www.facebook.com/ZontaClubOfPierreFortPierre/

MAY

9 – CINCO DE MAYO FESTIVAL, FALLS PARK, SIOUX FALLS

The Wells Fargo Cinco de Mayo Fiesta at Falls Park is a family event that brings together the business and civic community of Sioux Falls and the surrounding area to recognize, appreciate and celebrate the cultural gifts and heritage of the Latino people in our midst. While observing this traditional Mexican holiday, Cinco de Mayo in Sioux Falls creates awareness of and develops pride in the diverse Latino cultures that make up our community. Latino food, dance, art, music, children's activities and more make this a festive and fun family day. Join us at Falls Park from 11:00 AM - 7:00 PM. Free Admission.

16-17 – STATE PARKS OPEN HOUSE AND FREE FISHING WEEKEND

The annual Open House Weekend includes free entrance to all South Dakota state parks. Camping fees do apply. A number of parks will also host special events to kick off the summer and it is free fishing weekend, so licenses are not required. https://gfp.sd.gov/events/

23-24 – SDRA FOOTHILLS RODEO, WESSINGTON SPRINGS

Slack, Team Penning and 40 and Over Calf Roping on Saturday. Rodeo performances both Saturday at 6 pm & Sunday at 2 pm. Bareback, Saddle Bronc, Tie Down Roping, Steer Wrestling, Team Roping, Sr. Men's Breakaway Roping, Ladies Barrel Racing, Ladies Breakaway Roping, Ladies Goat Tying, Mixed Team Roping and Bull Riding. Don't foget the Mutton Bustin'. Event takes place at the Jerauld County 4-H Rodeo Grounds. For more information, visit www.wessingtonsprings.com/event-calendar.html

JUNE

5-6 – ORIGINAL SD BBQ CHAMPIONSHIPS, HURON

The Original SD BBQ Championships began in 2007 and is a Kansas City BBQ Society sanctioned event. The event shares the 180 wide-open acres with another major annual event known as Wheel Jam, featuring everything on wheels from motorcycles to classic cars to 18-wheelers. Event takes place at the SD State Fairgrounds in Huron. For more info, visit: www.sdbbqchampionships.com/

13 – LUCE PIONEER DAY, LAKE HERMAN STATE PARK, MADISON

History comes alive with old time crafts, demonstrations, and displays. Join in the pioneer fun in front of the Luce Cabin at Lake Herman State Park from 10:00 AM - 3:00 PM. No fee to attend, but a park entrance license is required. https://gfp.sd.gov/events/detail/1005/

25-27 – 31ST ANNUAL RED POWER ROUNDUP, HURON

Attention International Harvester aficionados! South Dakota Red Power Chapter 21 welcomes all International Harvester collectors, vendors and the general public to the 31st annual Red Power Round Up June 25th-27th on the South Dakota State Fairgrounds in Huron. 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. The three-day event includes an auction, parade, quilt show, children's activities, tours, steak and chicken feed and a variety of other entertainment including the Great Plains Truck and Tractor Pull presented by Titan Machinery. For more information visit www.redpowerroundup2020.com.

If you would like your event featured in the July 2020 issue of Quality on Tap!, please email your event description to: info@sdarws.com. July's issue will cover events taking place July - September 2020. Event listings are subject to approval by the QOT Editorial Board.

USDA Rural Development Increased Rural Population Limits to 50,000 for Some Loan Guarantee Programs

Julie Gross, State Director, USDA Rural Development

The U.S. Department of Agriculture (USDA) Deputy Under Secretary for Rural Development Donald "DJ" LaVoy announced in October of 2019 that in accordance with the 2018 Farm Bill, USDA's Rural Housing and Utilities Service will change rural population limits, fees and funding priorities for some loan guarantee programs administered through the Rural Housing Service and the Rural Utilities Service. The changes went into effect December 2, 2019.

USDA increased the rural population eligibility limit to 50,000 residents for the Community Facilities Guaranteed Loan Program (CF) and the Guaranteed Water and Waste Disposal Loan Program (WEP).

For fiscal year 2020, projects financed through the Community Facilities Guaranteed Loan Program will still receive priority in rural areas of 20,000 or fewer residents. Projects financed through the Water and Waste Disposal Guaranteed Loan Program will receive priority in rural areas of 10,000 or fewer residents.

USDA increased the Community Facilities Guaranteed Loan Program's one-time guarantee fee from 1 percent to 1.5 percent. The Agency also established an annual renewal fee of 0.5 percent of the loan's principal balance each year. There are no changes to the Water Waste Disposal Guaranteed Loan Program fee rates. For additional information, see page 52869 of the Oct. 3, 2019, Federal Register.

This provides new funding opportunities for communities over 10,000 and less than 50,000 including the communities of Aberdeen, Brookings, Watertown, Mitchell, Yankton, Pierre, Huron, Spearfish, Vermillion and Brandon.

Eligible applicants for CF include public bodies, community-based non-profit corporations, and federally recognized tribes. Eligible applicants for WEP include most state and local government entities, nonprofit organizations, and federally recognized tribes. For both CF and WEP, the maximum guarantee is typically 90 percent of the loan amount, one-time guarantee fee, interest rates may be fixed or variable as negotiated between the lender and the borrower and subject to USDA approval, and up to 40-year payback period,

Applications may be filed with the USDA Rural Development Area Office serving the county where the applicant is located. For information about either the CF or WEP, contact USDA Rural Development field staff in the Area Offices - Aberdeen contact Valerie Jensen at (605) 824-3624; Mitchell contact Austin Claeys (605) 299-3349; Pierre contact Brian Ring (605) 301-3411; Sioux Falls contact Diane Sieperda (605) 937-4773; and Rapid City contact Dylan Tramp (605) 858-6679 or Katie Hammer (605) 858-6703.

USDA is an equal opportunity provider, employer and lender.

USDA Rural Development – Emergency Community Water Assistance Grant Funds Available to Eligible Communities

By Julie Gross, State Director, USDA Rural Development

The effects of heavy snow and rain have influenced water resources throughout the state of South Dakota, especially during the past two years.

Rural communities whose water supply is being impacted may find assistance through USDA Rural Development's Emergency Community Water Assistance Grant (ECWAG) program.

This program provides funds to assist rural communities that have experienced a significant decline in quantity or quality of water, or in which such a decline is considered imminent. Funds may be used for several purposes related to water supply issues caused by an emergency. Some examples are waterline extensions, repairs related to an emergency, construction of new wells or other permanent water sources, provision of a temporary water source in certain circumstances, equipment replacement, and related project fees such as engineering or legal.

Under the ECWAG program, funds may be used in incorporated communities of less than 10,000 residents or any unincorporated area. Eligible applicants include public bodies, private nonprofit corporations, and Federally recognized Indian tribes.

Applicants must possess the legal authority to own and operate the water facility and must document the emergency that caused the problem. Examples of emergencies include, but are not limited to, drought; earthquake; flood; tornado; hurricane; disease outbreak; or chemical spill, leakage, or seepage. A disaster designation is not required.

The maximum grant is $150,000 for repairs, partial replacement, or significant maintenance on an established system, or $1,000,000 to alleviate a significant decline in quantity or quality of water that occurred within two years of filing an ECWAG application, or to attempt to avoid a significant decline that is expected to occur during the 12-month period following the filing of an application.

Applications must demonstrate need for the grant based on median household income and repayment ability and are subject to environmental review. ECWAG funds may be used in conjunction with other sources of funds.

Applications may be filed with the USDA Rural Development Area Office serving the county where the applicant is located. For more information about the ECWAG program visit www.rd.usda.gov/sd or contact USDA Rural Development field staff in the Area Offices - Aberdeen contact Valerie Jensen at (605) 824-3624; Mitchell contact Austin Claeys (605) 299-3349; Pierre contact Brian Ring (605) 301-3411; Sioux Falls contact Diane Sieperda (605) 937-4773; and Rapid City contact Dylan Tramp (605) 858-6679 or Katie Hammer (605) 858-6703.

We understand the importance modern and reliable water systems have in helping rural communities thrive. From economic opportunity to public health and the environment, modern infrastructure, including water infrastructure, is a foundation for enhanced quality of life and prosperity in rural America.

Rural Development also provides loans and grants to help expand economic opportunity and create jobs in rural areas. This assistance supports infrastructure improvements; business development; housing; community facilities such as schools, public safety and health care; and high-speed internet access in rural areas.

USDA is an equal opportunity provider, employer and lender.

HOW TO PREPARE YOUR HOME FOR A FLOOD

Buy and install sump pumps with backup power

Floodwaters can often cause power outages that can last for days or weeks. You'll want a sump pump that can run on backup batteries or even a generator. Your best bet is to get both. Pumps that run on electrical current won't run as long as those designed to run on a 12-volt battery. Your best bet is to have a knowledgable electrician or plumber evaluate your systems and recommend the best backup for your home.

Install septic pump alarms

Alarms can alert you to flooding before the issue becomes serious. If you have a septic system and it becomes flooded, refrain from flushing your toilets until you have had an expert check out your system. Tanks can often float free, or rupture, sending sewage into your home. Tanks should not be used or pumped out until floodwaters have receded and inspected by an expert.

Waterproof your basement entrances

Make sure your gutters and storm drains are clean and that your property slope directs water away from your home. This includes diverting water flow from window wells and entrances into your basement that could flood in high waters.

Anchor fuel tanks

An unanchored fuel tank can wreak havoc during a flood – it could be swept downstream and cause damage to other houses, break open and contaminate water, catch fire, or even explode or burn if exposed to sparks from downed power lines.

Install backflow prevention valves or plugs

During a flood, sewer and storm drains can back up and force sewage back into your home through washing machines, bathtubs, sinks, and dishwashers. Talk to a plumber about installing valves and plugs to prevent sewage from backing up into your home.

Learn how to use sandbags and plastic liners properly

Sandbags, even when properly used, won't keep all the water out of your home. However, they are effective at reducing and re-directing the water flow to prevent water from seeping into doors and windows at ground level. Make sure to build at least 8 feet from your sandbag wall and the building it is protecting. Walls should also be three times wider than they are tall, and one foot higher than the predicted crest of water.

Have a backup water supply

After a flood, it is not advised to drink water from your well or water system until the water has been tested and verified safe by the state health department. Having a supply of bottled water is always a good idea in the event of an emergency. The rule of thumb is one gallon per person per day.

Have a backup toilet system

The more use a septic system gets when flooded, the more likely it is to fail. Have a backup plan for toileting. If city water services are disrupted, you may need an alternative system to flush (consider collecting rainwater or floodwater in the tank). Another alternative would be to use a 5-gallon bucket lined with heavy-duty trash bags. You can also shut off the water to your toilet, flush the remaining water out, and drape heavy-duty trash bags or red sanitation liners into the now dry toilet bowl, allowing you to use it without water. Make sure to duct tape or securely tie the bags shut after use and dispose of safely.

Soil Management Now Affects Long Term Outcomes

By Janelle Atyeo for the South Dakota Soil Health Coalition

"Tillage in soil is like if a tornado went through the heart of Sioux Falls." That's how Roscoe, South Dakota, farmer Dennis Hoyle describes the practice of churning soil to prepare fields for planting. Houses may remain in the aftermath of a tornado, but some are uninhabitable, and some are completely destroyed.

"Whoever survives that is going to have to start over," Hoyle said. Likewise, the soil is home to a busy community of microbes. Pulling a tiller through even once disrupts the natural balance of microbes that can be so beneficial for farming.

Many farmers broke out their tillage equipment this spring as they eagerly waited for fields to dry out, so they could plant between what felt like endless spring rains. Tillage is a standby method for drying soils quickly, but soil health experts say the practice does more harm than good. "Tillage is very hard on soil structure," said Sara Bauder, Agronomy Field Specialist with South Dakota State University Extension.

The practice can add oxygen to top soil and increase soil temperature in the short term, but the damaging effects of tillage are long term. It actually contributes to the excess moisture problem farmers are battling this year.

Tillage decreases water infiltration by disturbing the root channels and worm holes that provide a path for water. "This generally results in more runoff and hard pan issues that cause moisture management problems in the long run," Bauder said.

The urge to till can be strong in a wet year, however. Hoyle watched his neighbors work their low ground to prepare for planting this spring. "I understand the temptation, but soil health is a long-term deal," he said. "It's not about this year. It's about the next generation."

He has spent decades reversing effects of tillage on his farm ground. In recent years, his focus has turned to building organic matter that will make for more productive soils when he passes his operation on to his kids and grandkids.

Tillage decreases water infiltration by disturbing the root channels and worm holes that provide a path for water. "This generally results in more runoff and hard pan issues that cause moisture management problems in the long run," Bauder said. Photo Credit: USDA-NRCS South Dakota

"We have to protect this resource," he said. Tillage reduces organic matter soil microbes need to thrive, noted Kent Vlieger, South Dakota's Soil Health Specialist with the Natural Resources Conservation Service. He listed other problems the practice causes: it destroys soil structure, creates a space for weeds to thrive and always increases erosion.

No-till fields, on the other hand, hold up better in wet years. Water moves through its porous layers instead of ponding on the surface, and crop residue helps hold soil in place, so it doesn't wash away in heavy rain.

"It's kind of a snowball of good benefits you're going to have not tilling," Vlieger said.

Back in Roscoe, Hoyle tested one

of his fields to see how different management practices affected the way they handled water. One area was green with a full season cover crop. Twenty feet away, the other spot was brown with wheat stubble. An inch of water took more than four minutes to soak in through the soil surface in the wheat stubble field. The cover crop area handled the water in 28 seconds.

Not disturbing the soil structure also allows layers to build strength. A no-till field will support heavy equipment better than one with disturbed soil. Hoyle is often out in his fields earlier than farmers next door – planting in muddy conditions or spraying when heavy equipment would sink into tilled acres. "It allows me to do things the neighbors question," he said. "You have the structure to hold you up."

Hoyle and another northeastern South Dakota farmer both gave up tillage during a dry period in the 1980s as a way to save moisture. The soil health they've built in the decades since then has helped them through the recent wet cycle, too.

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No-till fields, on the other hand, hold up better in wet years. Water moves through its porous layers instead of ponding on the surface, and crop residue helps hold soil in place, so it doesn't wash away in heavy rain.

Pictured above, infiltration test performed in a no-till soybean field. Photo Credit: USDA-NRCS South Dakota

Ryan Wagner farms in the heart of Prairie Pothole country in Day County, where there's been an overabundance of moisture in recent years. His dad started the transition to no-till before Wagner was in school, and their farm has been 100 percent no-till since the 1990s. The younger Wagner said it's helped them manage moisture.

"If you get that water to go through the soil rather than pond on the surface, you're better off," he said.

His planting season went smoothly this spring compared to what fellow farmers had to deal with in southeastern South Dakota. Wagner caught good stretches between rains and got his corn planted in early May before many other farmers in the state could even get in the field. He feels for them but hopes it doesn't cause them to lose faith in no-till.

"It's definitely been one of the more challenging years," he said. "Just because we're in the wet cycle, I hope we don't see people going backwards on no-till." Bauder urges those getting into no-till to allow time for soil structure and water infiltration to improve. In some cases, this year, the soil was so saturated it was unlikely anything could fix it overnight, she said.

Vlieger agreed there is no quick fix for saturated fields and warned against undoing the good effects of no-till. "One tillage pass can set you back quite a ways," he said.

A healthy soil structure is built up over years and years of no-till management, he said. He encourages farmers to use a diverse crop rotation mixed with small grains and consider planting cover crops to use excess moisture in the fall. A cover such as cereal rye seeded after harvest can grow before planting work begins in the spring, soaking up early season rains.

"When mother nature slams us with crazy amounts of rain and flooding, there really aren't a lot of things we can do to control or fix the situation but having healthy soils with good structure and a growing, living root can help us be as prepared as possible," Bauder added.

Reprinted with permission from the South Dakota Soil Health Coalition – www.sdsoilhealthcoalition.org

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A cover such as cereal rye seeded after harvest can grow before planting work begins in the spring, soaking up early season rains. Pictured above, cover crops planted in a crop field that was flooded out in June of 2014, near Canton, SD to protect soil from erosion and utilize excess moisture. Photo Credit: USDA-NRCS South Dakota

GRANT-ROBERTS RURAL WATER SYSTEM

The idea of a rural water system to serve area farmers and small towns was not a new idea in the mid 70's in eastern South Dakota. When Phase II of the Brookings-Deuel Rural Water System was undertaken, the town of LaBolt was included. The residents of the town of Stockholm expressed a desire to also be included and sign-up of area farmers between the two towns started. When FmHA discovered there was a great deal of interest in a rural water system as far north as Big Stone Lake and Wilmot area, they suggested that this area would be better served by another system rather than a continuation of the Brookings-Deuel System.

In early 1976 the interest in rural water was heightened by the extreme drought the area experienced. Farmers were finding their stock ponds dry and that put additional strain on the wells to water livestock. Many shallow wells went dry and the quality of the water in some changed. Don Davis (first Chairman of Grant-Roberts) had to haul water every day to keep his dairy farm functioning. Many area farmers reduced the size of their herds or sold out altogether because of lack of water and feed.

The initial planned system consisted of 650 miles of pipe, ranging in size from eight inch down to inch and a half. That pipe was intended to serve 840 users from Stockholm on the south to Big Stone Lake, on the north and west to the Wilmot and Marvin areas. The well and treatment plant sit on the original site one mile north of South Shore on the old Dale Drake farm. The system started with one well that had the capacity to pump 500 gallons of water per minute for 12 hours continuously.

As originally designed, the well site is 700 feet above Milbank and 900 feet above the lowest customer. The original system did not require water towers or pumping stations, but rather a series of pressure reducers were required to provide water at a desirable pressure.

Initial System construction cost $7.04 million. FmHA loan of $4.83 million, FmHA grant $1.52 million, state grant of $300,000 and membership contributions of $390,000.

The original hookup fee was $245.00. Once the water started to flow, the original minimum for a farm hookup was $16.00. Currently a hookup for Grant-Roberts Rural Water is $1,045.00 (not including a meter pit) and a farm hookup monthly minimum charge is $28.00

Since the early eighties the system has continued to expand. Grant-Roberts RWS is currently providing water to around 1800 service connections. The well field which had three wells when the initial construction was completed has been expanded to six current active wells. Initially there were three 100,000 gallon storage reservoirs; now we have three 300,000 gallon reservoirs. In 1997 the system expanded into parts of Minnesota by serving the communities of Nassau and Marietta. Marietta has a water tower that is maintained by Grant-Roberts and Nassau has some in-ground storage as well. Grant-Roberts also has a 140,000 gallon standpipe that is utilized seasonally along the shores of Big Stone Lake. The treatment plant was originally designed with three pressure filters, and after an expansion in 2005, six pressure filters are now used to remove iron and manganese.

Water quality has always been a top priority for Grant-Roberts. Through the years the system has purchased over 500 acres around the well field for Source Water protection. These land purchases will help ensure that Grant-Roberts will continue to provide the highest quality water. When the system first started delivering water, the water had a total hardness of 256.5 ppm. Over the years the water has gotten a little harder and currently has a total hardness of around 307 ppm.

Looking forward, the board is aiming to provide service to several communities within or near the footprint of the current Grant-Roberts distribution lines. Within the next 5-10 years the board hopes to add Corona, Marvin and the entire city of South Shore. They are also looking at the feasibility of running an expansion up to the Summit area and a few other possible minor expansions. These expansion opportunities and a continued desire to strengthen the existing distribution system will allow us to continue providing water to our customers long into the future.

From the time those early pioneers decided to work together to bring reliable, high quality water for the area up until today, Grant-Roberts has strived to provide our members quality water that meets safe drinking water standards, and to operate and maintain a water distribution system for a long term water supply in our service area.

Grant-Roberts Board of Directors
Back row L-R: Attorney Mark Reedstrom, Director Gary MacDonald, Director James Mertens, Secretery Robert Hicks, Treasurer Tom Frogner. Front row L-R: General Manager Brent Hoffmann, Vice Chairman Bruce Granquist, Chairman Galen Zemlicka, Director Ron Bowen.

Grant-Roberts Staff
Back Row L-R: Operator Cory Veen, Operator Doug Gulley. Front Row L-R: General Manager Brent Hoffmann, Utility Billing Clerk Jen Wellnitz, Operator Todd Kuefler.

Grant-Roberts
Rural Water System

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Galen Zemlicka – Chairman
Bruce Granquist – Vice-Chairman
Robert Hicks – Secretary
Tom Frogner – Treasurer/State Association Director
Ronald Bowen – Director
James Mertens – Director
Gary McDonald – Director

STAFF:

Brent Hoffmann – Manager
Jen Wellnitz – Utility Billing Clerk
Doug Gulley – Operator
Todd Kuefler – Operator
Cory Veen – Operator

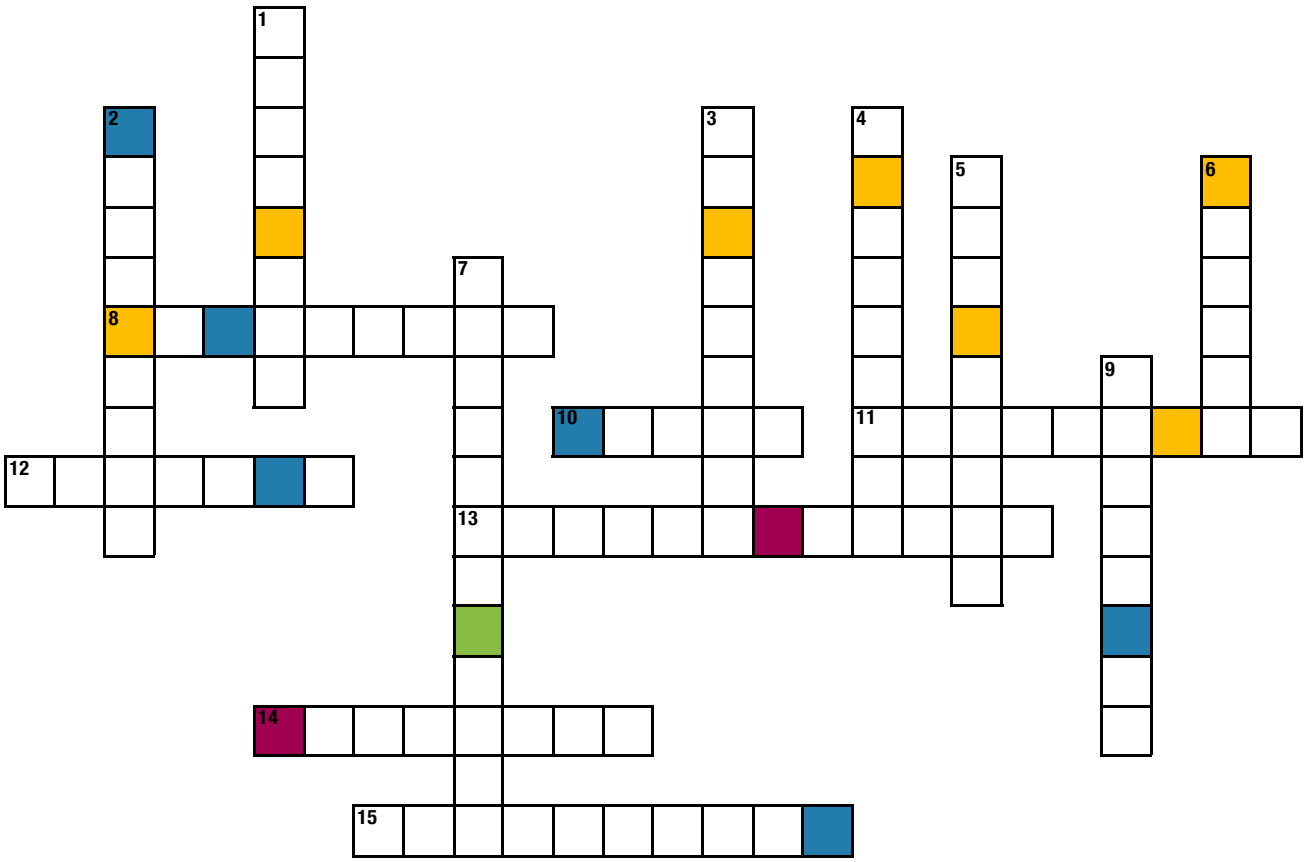
STATISTICS:

Hookups: 1,930
Miles of Pipeline: 760
Water Source: Antelope Valley Aquifer
Counties Served: Grant, Roberts, Codington, Deuel, Lac Qui Parle (MN)
Towns Served Individual: Albee, Stockholm, Strandburg, South Shore, Twin Brooks, Nassau (MN), Marietta (MN)
Towns Served Bulk: Wilmot

RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

TAXES

Enter to Win $100



ACROSS

8. IRS forms that are used to report various kinds of income, deductions, and credits.
10. When the IRS examines and verifies your return or any other transaction with tax consequences.
11. _____ tax. What the taxpayer expects to owe in taxes over the course of the year, generally paid quarterly with vouchers.
12. Reductions of tax liability allowed by Congress for various purposes.
13. Wages, commissions, tips, fees, or self-employment income from services rendered.
14. _____ deductions. Expenditures that the tax code deems appropriate for reducing adjusted gross income.
15. _____ income. Income that is not taxed.

DOWN

1. Costs incurred doing one's job.
2. An IRS document that is provided to the taxpayer to compile information and is not usually filed with the return.
3. A subtraction from taxable income.
4. A person who meets the five tests of dependency and thereby qualifies to be claimed as a dependent for tax purposes.
5. A reduction of income that would otherwise be taxed.
6. Money received, especially on a regular basis, for work or through investments.
7. Deduction for the wear and tear of an item used for business.
9. _____ loss. A loss caused by the complete or partial destruction of property that results from an unexpected event, i.e., floods, fires, etc.

SCRAMBLE ANSWER

RULES: Use the colored squares in the puzzle to solve the word scramble above. Call your Rural Water System (See page 2 for contact information) or **enter online at www.sdarws.com/crossword.html** with the correct phrase by April 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 Lisa Palo who had the correct phrase of "Hunting Promotes Conservation" for January 2020.

TM Rural Water District
Annual Water Quality Report
January 1, 2019 - December 31, 2019

Water Quality
Last year, the TM Rural Water District monitored your drinking water for possible contaminants. This brochure 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.

TM Rural Water District is committed to providing our customers with safe reliable drinking water.

Water Source
We serve more than 1,500 rural residences and provide wholesale water to the communities of Canistota, Hurley, Marion and Viborg in addition to supplying treated water to an ethanol plant located NW of Marion, SD an average of 1,507,000 gallons of water per day. Our water is groundwater that we produce from local wells.

TM currently has two different sources of ground water that we treat and distribute to our customers.

The Dolton Aquifer, named after and located in the area of Dolton, South Dakota. It is the original aquifer that supplied the source of water for TM and provides a portion of the water used by our customers today.

The Upper Vermillion Missouri Aquifer otherwise known as the Basal Aquifer is the other source of ground water currently utilized by the District and is the larger of the two aquifers. The UVM Aquifer in some places is actually below the Dolton Aquifer.

Finished water is finally blended with a small amount of finished water supplied by BY Water User District and Lewis & Clark Regional Water System.

The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the TM Rural Water District public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call the TM Office at 605-297-3334.

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.

Water Treatment
The water treatment plant located just to the east of Dolton, South Dakota is where TM brings in the raw water from the Dolton and UVM aquifers.

The water treatment plant utilizes conventional lime softening treatment where raw water is mixed with a lime slurry which then reacts with the calcium and manganese in the water. The calcium, manganese and other solids bond to the lime and settle to the bottom leaving only clarified water that continues onto the next stage of the treatment process.

Carbon Dioxide is then added to the water to further soften the water before it is sent to the filtration process which filters the water through 18 inches of anthracite coal and 12 inches of fine sand where any remaining suspended matter is removed from the water.

Chlorine is then added to the water at the rate of approximately 3.5 parts per million. Chlorine is added in order to kill any bacteria that the water may come in contact with during its travel through the distribution system. The water then flows to the underground storage units under our plant where the chlorine is thoroughly mixed before being sent out into the distribution system.

Water Distribution
The TM water distribution system is comprised of eight high service pumps, three booster stations, four water towers, and approximately 900 miles of water lines. Water is distributed to customers in six different serving areas in the District. Service areas are created when water is pumped or gravity fed from one service area to another and are typically categorized as having different hydraulic gradients associated with them.

Additional Information from the EPA
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 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 TM Rural Water District 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 tables shown on page 15 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.

Definition of Terms

These definitions are provided in order for you to better understand the results of the testing shown below.

Questions?

TM Rural Water District firmly believes that it is important that our users read and fully understand this yearly report. We would encourage anyone that has any questions or concerns to contact the TM Rural Water District Office during normal business hours at 605-297-3334.

Definition of Terms

These definitions are provided in order for you to better understand the results of the testing shown on page 15.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) – one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

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

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one in a million chance of having the described health effect.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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.

Nephelometric Turbidity Unit (NTU) – is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air. The measurement of turbidity is a key test of water quality.

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

Summary of 2019 Detected Contaminants in TM's Water

Antimony – occurs as a result of discharge from petroleum refineries; fire retardants; ceramics; electronics; and solder. The levels detected are well below those allowed by the EPA.

Arsenic – occurs as the result of natural deposits or from runoff from orchards. The levels detected in 2019 are well below those allowed by the EPA.

Barium – occurs as a result of erosion of natural deposits. The levels detected in 2019 are well below those allowed by the EPA.

Chromium – occurs as a result of erosion of natural deposits. The levels detected in 2019 are well below those allowed by the EPA.

Fluoride – is added to our water to promote healthy teeth. The optimum Fluoride level in water is 1.2 ppm.

Selenium – a naturally occurring substance found in the soil and rocks of this region. The levels detected in 2019 are well below those allowed by the EPA.

Nitrite (as Nitrogen) – can come from runoff from fertilizer use; leaching from septic tanks or erosion of natural deposits. Levels detected in 2019 are well below those allowed by the EPA.

Lead and Copper – Levels are normally a function of home plumbing fixtures. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes throughout the system as a result of the materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may want to have your water tested. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791)

2019 TABLE OF DETECTED CONTAMINANTS FOR TM RURAL WATER DISTRICT *(EPA ID 0999)*

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.1	0	07/17/19	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	1	0	07/17/19	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	0.46		10/16/19	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA) *	16.9		09/10/19	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Haloacetic Acids (RAA)	16.5		09/17/19	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total Coliform Bacteria	1	positive samples		1	0	pspm	Naturally present in the environment.
Total trihalomethanes (RAA) *	36.7		09/10/19	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	35.6		09/17/19	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

2019 TABLE OF DETECTED CONTAMINANTS FOR LEWIS & CLARK REGIONAL WATER SYSTEM *(EPA ID 2288)*

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.0	0		AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	0	0		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	0.75	0.37 - 0.75	12/12/19	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen)	0.7		10/07/19	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

2019 TABLE OF DETECTED CONTAMINANTS FOR B-Y WATER DISTRICT *(EPA ID 0865)*

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.1	0	06/27/19	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	1	0	07/03/19	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	0.80	0.50 - 0.80	01/28/19	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	25.25		12/03/19	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	49.15		12/03/19	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Substance	Level Detected	Units	Date Tested	Range
Bromide	55.379	µg/L	06/03/2019	41.488-55.379
Manganese	0.577	µg/L	06/03/2019	0.418-0.577
HAA5	46.314	µg/L	06/03/2019	10.952-46.314
HAA6Br	15.852	µg/L	06/03/2019	7.092-15.852
HAA9	60.988	µg/L	06/03/2019	16.986-60.988
Total Organic Carbon	5922.5	µg/L	06/03/2019	3141.3-5922.5

Please direct questions regarding this information to Mr. Jay Jorgensen with the TM Rural Water District public water system at 605-297-3334.

TM Rural Water District
Box 445
Parker, SD 57053

www.tmruralwater.com
605-297-3334

WATER MATTERS

Bacteria in Surface Water

Every summer, thousands of South Dakotans spend time in and around the rivers, streams and lakes of the state. In fact, the state has officially identified immersion recreation (swimming) and limited-contact recreation (other uses of the water like fishing or boating) as beneficial uses for hundreds of individual lakes, along with many miles of rivers and streams.

To assess whether or not the water at a particular lake or stream is suitable for these recreational uses, the state has adopted measurable criteria for water samples. The primary criteria is the concentration of Escherichia coli (E. coli) in the water. E. coli bacteria are measured as indicators of possible contamination because they are commonly found in human and animal feces. Most varieties of E. coli bacteria are harmless (or even beneficial) to people. However, the presence of E. coli in elevated numbers indicate that there is a higher probability of the presence of pathogenic (disease-causing) bacteria, viruses, and protozoans that are also found in human and animal wastes.

Sources of fecal contamination to surface waters include wastewater treatment plants, on-site septic systems, domestic livestock and pets, wildlife and storm water runoff. However, regardless of the source, the presence of elevated levels of bacterial contamination suggests that pathogenic microorganisms might also be present and that use of the water might be a health risk.

Is My River/Stream/Lake Safe?

The South Dakota Department of Environment and Natural Resources (SD DENR), along with a number of partners (including the East Dakota Water Development District), gathers, tests and evaluates water quality information from numerous locations across the state to determine if the designated beneficial use(s) are being met. Every two years, SD DENR publishes a report on their findings, including data on measured bacteria levels. If your particular lake or stream is not listed, you may want to explore other options, including taking your own samples.

In most cases, measured bacteria levels are well within safe ranges. However, it is never a bad idea to have at least some understanding of what to expect when visiting the local lake or stream.

To learn more, consider the following resources:

SD DENR 2020 South Dakota Integrated Report for Surface Water Quality (the most recent version) - http://denr.sd.gov/documents/20irfinal.pdf;

SD DENR Water Quality Monitoring Access Portal, an interactive, web-based map of water quality monitoring locations, with links to site-specific water quality data - https://apps.sd.gov/NR92WQMAP/#

Back page content provided by:
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