



MID-DAKOTA RURAL WATER SYSTEM

Quality On Tap!

April 2017 | Volume 12, Issue 4

SYSTEM SPOTLIGHT:
Perkins County RWS

**UNEXPECTED BENEFITS
& UNLIKELY ALLIES**

**GEOLOGY &
SOUTH DAKOTA
RESOURCES**

MESSAGE FROM THE MANAGER

Kurt Pfeifle, General Manager
Mid-Dakota Rural Water System, Inc.



Quality On Tap!

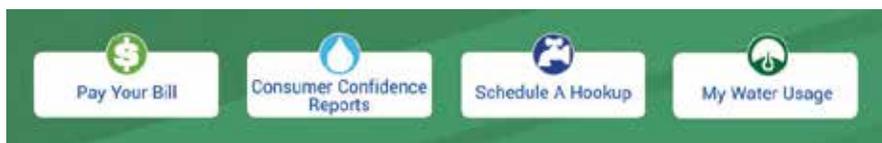
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EXPANDING OUR WEB PRESENCE

“We love Social Media because it exists at the intersection of humanity and technology!” – Anonymous

We'll put it off for as long as we could, too long really; but Mid-Dakota has taken steps to upgrade and expand our presence on the Internet (web). We have redesigned our website (www.mdrws.com) making it more functional and easier to navigate. We have included easy to use navigation buttons to accomplish the most basic of tasks: Paying your bill online, reading our Consumer Confidence Report, getting things done with hookups and viewing your Water Usage:



Regarding the “My Water Usage” button; this is where Mid-Dakota’s customers can go to get signed up to read and monitor your own water usage. The first step is to fill out a very short form with some basic information and submit it to our office... we'll take it from there. Once signed up you'll be able to view your daily meter readings and set notifications for abnormal water use.

The website will still have a ton of other good information concerning Mid-Dakota as well as other forms and tools for interacting with your Rural Water System. Rather than me trying to explain everything that's new (or old) on the website, I will simply encourage you to go to the web address (above) and explore the site yourselves.

Mid-Dakota has dipped its toe into the Social Media world as well. You can easily find us on Facebook and on Twitter. We have handy links to Facebook and Twitter on our website or you can search “Mid-Dakota Rural Water” on Facebook or @MidDakotaRWS on Twitter. Once you've found us, please “Like” us (Facebook) and “Follow” us (Twitter). We intend to use the Social Media sites to make special announcements, provide general notification of outages (please don't report outages on Social Media, call directly to Mid-Dakota), provide water related items of interests and factoids and share a picture or two.



Rural Directors

Steve Robbennolt District 1
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Scott Oligmueller District 3
Lennis Fagerhaug District 4
Rick Benson District 5

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Jim McGillvrey At Large
Jeff McGirr Huron
Darrell Raschke Huron

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Susan Hargens Member Services Manager
Sandy Holt Customer Accounts Specialist
Tammy Oligmueller . Customer Accounts Specialist
Kristen Arthur Customer Accounts Specialist

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Water Transmission & Distribution - Miller, SD

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Consultants

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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.



SD ASSOCIATION OF RURAL WATER SYSTEM LONGEVITY AWARDS

On January 12, 2017 at the South Dakota Association of Rural Water Systems' Annual Technical Conference, three members of Mid-Dakota Rural Water System's staff were recognized for years of service in the water industry. General Manager Kurt Pfeifle was recognized for the 30 years of combined service with both West River/Lyman Jones Rural Water and with Mid-Dakota Rural Water System (MDRWS). Member Services Manager Susan Hargens was recognized for 30 years of service which included her time served first as a board member and later as an employee of MDRWS. Scott Perry also received his 5-year pin from the association for his service as a Specialist for MDRWS. Congratulations go out to all three of them for a combined water service of 65 years in the water industry.

Monitoring your water usage online Mid-Dakota Customer Portal

Mid-Dakota has installed Automatic Meter Reading (AMR) devices at all of our customer services. The Meter Transmitting Unit (MTU) collects a reading from the customer's meter once every hour, stores the readings and then transmits them every 5 hours (saves battery life). The readings are transmitted from the MTU to a Collector in the area, the Collector bundles all the readings and transmits them to the office. All of Mid-Dakota's services have been converted to AMR reads and the customer is no longer required to read their meters and send in the readings. It is possible that our installation contractor missed installing MTU's on some accounts, if you do not see an MTU device, please notify Mid-Dakota and we'll make sure the MTU is installed and water use is being recorded.

Mid-Dakota has been working with Mueller Systems, Inc. (our AMR supplier) to set up an online customer portal that will provide the customer with the ability to create an account, view and monitor their own water usage. We're happy to report that the site has been rolled out and is up and running. You can go to Mid-Dakota's website at www.mdrws.com and click on the "Services" tab and choose "My Water Use" and "Sign up." Mid-Dakota will create your account and you'll be notified by email of the next steps. A handy Portal User Guide is also available here.

Once you've created your account on the Portal you will have many views and tools available to you for monitoring and comparing your water use. You can view and compare your water use in a convenient chart format or for those who are more comfortable with numbers you can choose to view the same data in a "table" format. The Portal also allows you to set custom parameters such as creating a notification if your service exceeds a certain amount of water in a day... for example: Send me an email notification if my water use exceeds 100 gallons per day.

IMPORTANT AMR NOTICE!

*Mid-Dakota utilizes a remote meter reading application (MegaNet) to facilitate customer billing. The primary application is not available to the customers. Mid-Dakota does not regularly monitor the water usage data for customers to determine if there is an unreasonably large water usage by any one customer. **The customer shall not rely upon Mid-Dakota or the remote meter reading application, utilized by Mid-Dakota for billing purposes, as a substitute for their own diligence in monitoring their water usage.** The customer is responsible for all water loss on the customer's side of the meter, whether or not detected by the remote meter reading application. The customer is required to make a physical inspection of the customer's own system on a regular basis to avoid unintended water loss. The customer is also provided access to the "customer portal" as another way to monitor their own water usage.*

SCHOLARSHIP APPLICATIONS DUE APRIL 1, 2017

Every year for the last eleven years Mid-Dakota Rural Water System has presented scholarships to students attending a post-secondary school in South Dakota. This year will be no exception, and once again Mid-Dakota will be selecting four students to receive \$500.00 scholarships to be used in their continuing education. The students must be a child of someone who is a member of Mid-Dakota or a resident of a community that is a Mid-Dakota member. An application can be found in this publication of Quality on Tap! on page 15, on the website at www.mdrws.com, or at the Mid-Dakota office in Miller. Copies have been sent to schools within the Mid-Dakota service area. The completed application must be accompanied by the most recent transcript from high school or college, a photo to be used for publicity purposes, and a 250-500 word essay about what rural water means to the applicant or the applicant's community.

Applications must be received at the Miller office by 5:00 p.m. April 1, 2017. All applicants will receive a letter letting them know whether or not they were chosen to receive a scholarship. A \$500.00 check will be sent to each of the successful applicants' schools at the beginning of their second semester at the post-secondary school of their choice located in South Dakota.



OUT AND ABOUT

APRIL

1 – ROOTS & SHOOTS GATHERING - WATERTOWN

An annual spring free day at the Bramble Park Zoo in Watertown. Stations around the zoo highlight service learning, animals and Native American cultures. This is a Jane Goodall Institute's Roots & Shoots event. Free will canned-food donation. www.brambleparkzoo.com

15 – EGGSTRAVAGANZA – RAPID CITY

Spend time with the family in downtown Rapid City, experience children's activities at Main Street Square and hunt for eggs at Memorial Park on Saturday, April 15. The Easter Bunny will even make an appearance! For full event details, visit mainstreetsquarerc.com/concerts-and-festivals/eggstravaganza.html.

26-29 – BLACK HILLS FILM FESTIVAL – HILL CITY

The 8th annual Black Hills Film Festival will be April 26-29. In addition to screening great Independent Films, the Festival also features seminars and workshops with Industry Experts and great parties with Celebrity guests. Some of the weekend's events take place in Hill City and others take place in Rapid City. See the full schedule online at <http://www.blackhillsfilmfestival.org>.

MAY

5-7 – SOUTH DAKOTA BIRDING FESTIVAL – FT. RANDALL

Registration is in Pickstown, SD. Activities include bird banding, bird identification, birding experts and speakers, guided field trips, and children's activities. This is the only time that the Karl Mundt National Wildlife Refuge located by the Fort Randall Dam is open to the public. <http://southeastsouthdakota.com/what-to-do/calendar-of-events/details/south-dakota-birding-festival>

19-20 – SOUTH DAKOTA 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. <http://gfp.sd.gov/state-parks>.

If you would like your event featured in the July 2017 issue of Quality on Tap!, please email your event description to: info@sdarws.com. July's issue will cover events taking place July - September 2017. Event listings are subject to approval by the QOT Editorial Board.

MAY

20 – HURON TURKEY DAYS/TURKEY RACES

The Huron Turkey Races take place every spring in downtown Huron. The event draws crowds eager to watch teams of two try to encourage their "turkey" team to cross the finish line first for a chance to win \$1,000. Activities include skills games, balloon animals, and more. Turkey Legs and Fowl Balls will also be available to test your palate. It's free fun for the entire family! www.huronsd.com/visiting-huron/special-events/huron-turkey-races.

JUNE

8 – SD SHAKESPEARE FESTIVAL - VERMILLION

The Comedy of Errors, an early Shakespeare play, deals us not only one, but two sets of identical twins. As the two heroes travel in search of their long-lost twins, they are mistaken along the way by citizens. Plenty of slap-stick, shtick and verbal banter serve up a true "comedy of errors." Performances are June 8-10 at 7 p.m. and June 11 at 4:30 p.m. There will be live music and vending beginning one hour before each performance. Bring your blanket or lawn-chair to Prentis Park in Vermillion. www.sdshakespearefestival.org

17 – ABERDEEN ARTS IN THE PARK

Aberdeen's 42nd annual Arts in the Park will feature exhibitors and vendors filling Melgaard Park for a weekend of fun, food, entertainment and of course fantastic arts and crafts. The juried event attracts exhibitors from more than 12 states and features more than 100 booths. Event hours are 10 a.m.-6 p.m. on Saturday and 10 a.m.-5 p.m. on Sunday (the third full weekend each June). Free admission. www.aberdeenareaartscouncil.com

JULY

28-30 – ARLINGTON DAYS

Arlington Days kicks off their 3-day celebration with something for all ages. Arlington Days features a Mud Bog side-by-side competition on a 400' track on Saturday afternoon for an opportunity to see some exciting muddy racing action. Bring your 4x4 and get in on the fun! A street dance; Music in the Park; Outdoor Picnic; Kids Fishing Derby; Free Swimming; and lots more entertainment for the whole family. See full list of events at www.arlingtonsd.com/economic_chamber.



CALL BEFORE YOU DIG - IT'S THE LAW!

By Larry Janes, Executive Director, SD One Call/SD811

Have you ever thought about what it would be like not to have good tasting, clean water available when you need it? Probably not. I know I rarely do, but there's just nothing better than turning on the tap and getting a refreshing cold glass of water to quench your thirst on a hot day or having that steaming hot water ready for you in the shower. And in those rare cases when there's a water break, we just can't wait until it's repaired.

For many, having clean water available for basic human needs is just not the case. There are all kinds of figures available on the internet ranging anywhere from hundreds of millions of people to several billion people who don't have access to clean or even adequate water supplies, either on a regular basis or ever. Fortunately for those of us living here in South Dakota, we do. And we have our water suppliers, excavators and you to thank for that.

Our water suppliers work hard to learn about new technologies to keep our water clean and safe. But why thank excavators and you, you ask? That's because you contacted the South Dakota 811 Center before digging, more than ever before, in 2016. In fact last year was a record year for contacting the South Dakota 811 system, either by calling 811 or by going on-line to request utilities to locate their underground services and mark them with paint or flags before digging occurred. The 811 Center was contacted, a whopping 148,352 times last year. That's more than any other year since the service began back in 1993. With our population in South Dakota of about 858,000 people, and with this large number of locate requests, it works out to almost one in six people digging something, somewhere in the state all year long.

What's really cool about this is that 54% of all these requests were made on line, with no hold time, even during the busiest times of the year, which are always during the spring thaw and just before freeze-up. We're constantly working to make it easier and more efficient for you to get your work projects out to the utilities in your area as quickly as possible. A call to the 811 Center takes about 7 to 8 minutes, from the time you reach a representative until you hang up, but the new, on-line Homeowner Portal takes only about half that time. Just go to www.SD811.com, click on the Homeowner or Landowner tab and click [HERE](#) to process your request using the South Dakota Homeowner Portal. It's a step-by-step process that's really easy to use. (Even I can do it, and that's saying something).

South Dakota 811 is there to accept your calls and on-line requests 24/7, 365 days a year, so water suppliers and other underground facility operators know to mark their lines to prevent outages. This can protect those buried services during excavation projects, such as planting trees, placing fences or drain tile, and any other projects where the earth will be disturbed and where those buried lines could accidentally be damaged. Once you've made contact with the Center all utilities in the area are notified of the work you'll be doing and when you plan to do it, so they can mark those underground lines, including your water, to ensure your safety and making sure that you won't lose your valuable services.

It's not only a good idea to contact 811 before digging, it's actually a law in South Dakota, as it is in every other state. You did a great job last year in keeping yourself and your water safe. Keep up the good work! Thank you from South Dakota 811 for getting those lines marked. And thank you from your local water provider and the South Dakota Association of Rural Water Systems.



*Glacial Lakes Ethanol Plant served by
WEB Water Development Association, Inc.*

Unexpected Benefits & Unlikely Allies

THE ROLE OF CURT HOHN, JOHN SIEH AND THE BUREAU OF RECLAMATION IN SOUTH DAKOTA'S DOMESTIC WATER SYSTEMS

By Peter Carrels

Two of today's key benefits from Missouri River development – recreation and domestic water pipelines – were not mentioned when the federal Flood Control Act of 1944 was discussed, championed and enacted. No one envisioned that by building dams on the river, walleye habitat would be created, and a recreation industry with widespread benefits would blossom. Planners also failed to anticipate the development of pipeline systems emanating at the river and providing clean, ample water to thousands of South Dakotans and hundreds of thousands of livestock.

A pivotal reason for passage of the 1944 legislation were plans in the bill calling for construction of several massive irrigation projects on the Northern Plains. Economic development leaders in both Dakotas cheered the prospect of these extensive blueprints. The venerable Bureau of Reclamation (BOR), a formidable federal agency, would plan, promote and build the projects as they had done in many other western areas.

Oahe dam was erected high and mighty to create a deep reservoir that would feed one of those irrigation projects, a sprawling, complex enterprise to be situated in northern South Dakota and officially titled the Oahe Unit. But when

grassroots opposition challenged that irrigation plan in its early years of construction it fell to project opponents to compel a more productive and noncontroversial use for those impounded Missouri River waters.

John Sieh became a notable figure in the Oahe irrigation project conflict. A Brown County farmer and businessman, Sieh helped lead the group of farmers and conservationists – called United Family Farmers – that opposed the irrigation project and fought the BOR and its powerful political and business supporters. In 1974 he first won election to the Oahe Conservancy Sub-District board of directors, the local board overseeing development of the federal irrigation project, and two years later he became that board's chairman, an occurrence that demonstrated the rising power of United Family Farmers. Sieh was simultaneously beloved and berated, speaking boldly and strategizing forcefully against the project. But he was also a public-spirited citizen, understanding that opposing the Oahe Unit was not sufficient duty for an institution like the Oahe Sub-District.

Sieh and his trusted colleague and friend, Curt Hohn, manager of the Oahe Sub-District, recognized that many rural people in the area to be served and impacted by the Oahe irrigation plan suffered from inferior and inadequate



WEB Water Intake on the Missouri River

water for household and other uses.

In its formative stages was a small group of dedicated individuals trying to rectify this problem by promoting a pipeline using Missouri River water. Sieh, Hohn and the Oahe Sub-District became their chief allies. The Sub-District hired a staffer to help pipeline advocates, allocated funds to help plan and establish the pipeline, and courted political support for it. This was the beginning of the WEB water system, named after the three counties – Walworth, Edmunds, and Brown – that would have benefited by the pipeline project.

By 1982 a major political compromise traded development of the Oahe Unit for federal support of several South Dakota water projects, including the WEB system. It had been a bitter ten-year fight to halt the enormous irrigation plan, and there were considerable misgivings about the trade by the project's boosters in South Dakota. But Sieh and Hohn pushed hard, and they found political partners who understood that replacing a controversial project with a popular, useful one was reasonable and appropriate.

When Hohn left the Sub-District in late 1982 he was hired by WEB supporters to help guide the WEB system through construction to completion. It was a tricky assignment, because the Oahe-WEB trade ushered in a new and relatively undefined set of responsibilities for the federal Bureau of Reclamation.

Losing the Oahe irrigation project fight was painfully difficult for the BOR as it marked the first and only time grassroots opponents had derailed one of its projects. That historic defeat also signaled a dramatic end to the agency's long domination of the West, and to the conventional mentality that building irrigation (reclamation) projects was synonymous with progress. Among BOR's new responsibilities was aiding rural water systems, including the new WEB project.

That, of course, meant bitter rivals Curt Hohn and the BOR had to work together. Hohn would later say that WEB and BOR steadily developed a positive working relationship, and that he grew to appreciate the professionalism of the agency. Hohn was credited with helping craft the unique funding mechanism through which the BOR could administer monies to build WEB, and that approach was later applied to other Missouri River pipeline systems.

Today's vast WEB water system may have been invented and incubated by an ardent collective of local activists, but the pipeline system was given its lasting life by John Sieh, Curt Hohn and their allies on the Oahe Sub-District board. Curt Hohn's skills and tenacity are critical reasons WEB became an invaluable contributor to quality of life in the region it now serves, and that success paved the way for numerous other rural water systems receiving federal funding via the Bureau of Reclamation.

Peter Carrels' book [Uphill Against Water](#) described Missouri River development in South Dakota and closely profiled the political fight over the Oahe irrigation project. From 1980 through early 1983 he worked for the Oahe Conservancy Sub-district. He now serves as communications coordinator for the University of South Dakota, and also works as a freelance writer for clients and publications.

GEOLOGY & SOUTH DAKOTA WATER RESOURCES

Part Three

By: Martin Jarrett, Big Sioux Community Water System, and Jay Gilbertson, East Dakota Water Development District

South Dakota has a diverse geologic history. Hard, crystalline rocks like granite and quartzite are found in the central core of the Black Hills and in quarries near Milbank, Mitchell and Sioux Falls. These and similar rocks underlie all of the state and form the foundation on which all other materials rest. Layered rocks, which can be seen ringing the Black Hills and extending east to the Missouri River valley (and beyond), record periods when the state was covered by great oceans that swept over the landscape. Lastly, covering most of the state east of the Missouri River are largely unconsolidated deposits left behind when glaciers repeatedly advanced across the area. While each geologic unit is different, they all share a common trait - they each have a direct connection to the drinking water resources that we utilize today. This is the third and final of a series of articles in which these connections will be explained and explored.

Ice Age South Dakota

From time to time over the long history of the planet, there have been periods when the climate was substantially cooler than usual. Referred to as ice ages, they mark times when glaciers covered a significant portion of the Earth's surface. During an ice age, which can last tens of millions of years, climatic fluctuations cause glaciers to alternately grow and advance, during glacial periods, and thaw and retreat, during interglacial periods. We currently live in what would be described as a relatively warm interglacial period within the Quaternary ice age, which began around 1.6 million (1,600,000) years ago.

The last major glacial period ended about 10,000 years ago. At its peak (18,000 to 25,000 years ago), glaciers covered about 30% of the planet's land surface, including most of northern Europe, northwestern Asia, Canada, and the northern United States. In places, the ice was up to 2-1/2 miles thick. In our part of the world, glaciers originating in Canada covered most of South Dakota east of the Missouri River. Note: Deposits from this period are mapped in shades of brown on the geologic map.

Evidence of earlier glacial periods can be found in certain parts of South Dakota, including deposits that likely date to the beginning of the current ice age. However, each advancing glacier often eroded and stripped away the deposits left behind by its predecessors, recycling and then

re-depositing the material, collectively called glacial drift. As a result, the present landscape is largely the result of the final advance, and subsequent retreat, of the ice. Deposits from earlier glacial periods are found along and east of the Big Sioux River, an area not covered by ice the last time around.

Glacial drift in South Dakota takes two basic forms. Glacial till is the material deposited directly by the ice when a glacier melts. It contains particles that range from microscopic clay up to boulders several feet across or larger. A single glacier can transport material for hundreds of miles, taking rocks from one area and depositing them somewhere else. Often the rocks left behind are nothing like the local variety. Such rocks are called erratics, and in certain instances can be shown to have traveled over a thousand miles as the result of multiple glacial events. Almost without exception, the rocks and boulders scattered across eastern South Dakota were carried into the state from elsewhere, mostly from Canada.

Glacial aquifers

The other major type of glacial drift is called outwash. Outwash typically consists of sand and gravel deposited in rivers and stream valleys by meltwater from glaciers. As ice melts, the resulting water flows away from the glacier, often in substantial torrents. As it passes over previously deposited material, it can pick up all but the largest particles. As the water slows, sand- and gravel-sized particles settle out, forming outwash deposits, while finer particles are carried far away. Across eastern South Dakota, deposits of outwash at or near the land surface mark the courses of meltwater channels and pathways formed as the last glacial period came to a close. Similar deposits are found buried beneath recent drift, but were formed in a similar manner during prior glacial periods.

Composed of porous sand and gravel, glacial outwash can hold and transmit significant quantities of water. Water from rainfall and/or snow melt that soaks into the ground can be found in these units. In some cases, modern rivers and streams, like the Big Sioux River and its tributaries, follow the old glacial meltwater channels. Interconnections between the river and aquifer provide another path for water to enter the outwash. As such, these deposits make excellent aquifers on which the citizens of the state have depended for many years.



GEOLOGICAL MAP OF SOUTH DAKOTA

Public water suppliers across eastern South Dakota, including both municipal and rural water systems, have developed well fields in glacial outwash aquifers. This is particularly true east of the James River, where extensive surface outwash bodies are found along former meltwater pathways in the Vermillion River and Big Sioux River basins. Using current and former channels as a guide to locating these aquifers, communities and individuals need do little more than dig/drill down a few tens of feet to find accessible water.

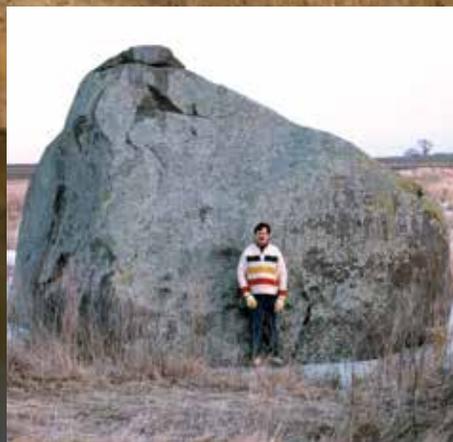
Where near surface outwash deposits/aquifers are absent, locating buried outwash poses more problems. Unlike older and geographically extensive bedrock aquifers (see Dakota aquifer described in the October 2016 Quality On Tap), the presence and location of outwash aquifers is not readily predictable. To better define the aquifers in the glaciated part of the state, the South Dakota Geological Survey (now known as the Geological

Survey Program within the State Department of Environment and Natural Resources) began a program in the late 1950s to define and inventory the geologic and groundwater resources county-by-county.

A critical part of the Survey's county study program involved the systematic drilling of exploratory test holes into and often through the cover of glacial drift. As a result, geologists were able to identify and map numerous buried glacial outwash aquifers. Observation wells installed in these aquifers have helped further define and quantify water available for use by public water suppliers, farms and individual homes. To date, the Survey has drilled over 23,000 test holes and wells for the sole purpose of better understanding and managing our natural resources. This effort has resulted in an unparalleled resource for the benefit of all South Dakotans.



Glacial outwash from near Big Stone City.



Lone Rock glacial erratic in eastern Moody County.



Glacial till from near Milbank.

SYSTEM SPOTLIGHT

PERKINS COUNTY RURAL WATER SYSTEM

The idea of Perkins County Rural Water (PCRWS) first came to light in 1982 when a group of farmers, ranchers, and representatives of Lemmon and Bison were approached by the Southwest Water Pipeline Project with the idea to sell water to Perkins County.

In 1992, the project was re-introduced to Perkins County by Southwest Water Authority. At this time, a committee of approximately 25-30 people from all over the county got together to form Perkins County Rural Water System, Inc. A nine member, volunteer Board of Directors was selected from three districts within the county. In addition municipal members selected one representative to serve on the board.

Perkins County Rural Water became a reality when it was organized as a non-profit organization in March 1993. The State of South Dakota furnished the startup money in the form of two \$50,000 grants under the State Water Plan. With this money, PCRWS was able to finance a feasibility study done by KBM, Inc. of Grand Forks, ND, and The Alliance of Rapid City, SD. The study was finished in late 1993 and showed it would be feasible to build a distribution system and purchase water from Southwest Water Authority.

The Governor's office and the State legislature were approached at this time to authorize Perkins County Rural Water System, Inc. With the authorization came appropriations of one million dollars to be used to finance our portion of the Southwest Pipeline construction in North Dakota and to allow the system to lobby US Congress for a Federal Authorization.

The next several years were spent working with US Congress,

towns of Lemmon and Bison, United States Fish & Wildlife Service, and the Grand River Grazing Association. In 1998, both of the towns signed a contract with Perkins County Rural Water to furnish them with 100% of their water needs. In the spring of 1999, the US Senate approved our authorization on the federal level. The House of Representatives passed the authorization in October of 1999, and the President signed our authorization into Public Law 106-136.

The authorization stated that the federal government would cost share 75% grant money of 28 million dollars to build the distribution pipeline in Perkins County. The appropriation was spread over at least six years of construction time.

Perkins County Rural Water was able to purchase 400 gallons per minute plus any excess water in the line to South Dakota from Southwest Water Authority and distribute that to the members of Perkins County Rural Water. To take care of demands that exceeded the purchase, storage was to be built to stockpile water.

Initial construction on the system began in 2003 with ground breaking occurring May 1, 2004. Initial construction of Phases I to VIII was completed in 2012 with the final amendment for initial construction signed after the installation of the HWY 75 Booster Station. PCRWS began their state repayment of \$5.144 million over 40 years on July 1, 2015.

The system is currently finishing up a DOT mandated realignment project from White Butte to Lemmon on HWY 12, and Summerville to Lemmon on HWY 73. They are currently in the process of installing an automatic meter reading system which began in 2014, and plan to finish this project in 2017.



Perkins Co. Office in Bison, SD



Booster Station on Highway 20



Main pump station near Lodgepole.

PERKINS COUNTY RURAL WATER SYSTEM

DIRECTORS:

- Don Melling, President
- Brian Morris, Vice-President
- Lynn Frey, Secretary/SA Director
- Colin LaMont, Treasurer
- Holly Waddell, Director
- Rodney LeFebre, Director
- Stanley Brixey, Director
- Art Pederson, Director
- Luke Clements, Director

STAFF:

- Shiloh Baysinger, O&M Manager
- Eric Newman, O&M Operator
- Brandi Baysinger, Office Manager

STATISTICS:

- Hookups: 878
- Miles of Pipeline: 850
- Water Source: Southwest Water Authority, ND
- Counties Served: Perkins
- Towns Served Bulk: Lemmon, Bison



RURAL WATER & Crossword Word Scramble Contest

Birds of Spring

\$100 Grand Prize

DOWN

1. Sunny colored songbird
2. Four and twenty of these baked in a pie
5. Violet fork-tailed swallow (two words)
6. Big-headed diver
9. Tree hole driller
10. Azure symbol of happiness
13. Bright red bird
19. Happy as a _____

ACROSS

3. Black and orange songbird; Baltimore baseball mascot
4. Pesky dark-brown bird
7. Small hoverer with a long tapered beak
8. Rural nester (two words)
11. Common and loud "seed cracker"
12. Tiny black and gray songbird
14. Pirates of the Caribbean Captain Jack
15. Rockin' red-bellied bird of spring
16. Avian mimic
17. "Crazy," but not a duck
18. American plover; "murdering buck"
20. Tiny little brown backyard bird

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 10th, 2017 to be entered into the \$100 drawing.

Online Entries - go to: www.sdarws.com/crossword.html

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 Robin Buchholz who had the correct phrase of "Victory requires payment in advance" for January 2017.

Benefits of Mid-Dakota Rural Water

By Nichole Metter

Water is a valuable resource that is vital for carrying out the activities of our everyday lives. People all around the world utilize water on a daily basis for drinking, bathing, cooking, cleaning, and many other things. I feel fortunate to live in an area that has an abundant supply of safe, clean water. Mid-Dakota Rural Water System provides my family and me with a dependable source of fresh, high-quality water.

The presence of Mid-Dakota Rural Water System in our community has been a great advantage to me and my family. Living on a farm southeast of Huron, each of us has benefitted from water brought to us by the Mid-Dakota pipeline. We are able to enjoy a higher quality of life since we began receiving rural water in our home nearly ten years ago. Rural water benefits our health by removing contaminants during the water treatment process. Not only does good quality water provided by rural water systems make a positive difference in our health, rural water also provides us with a reliable source of water that tastes good, is safe to drink, makes our laundry look brighter, and allows us to spend less money on cleaning products. Mid-Dakota ensures us a safe, clean water supply that benefits our health and improves our quality of life.



Knowing that my family and I receive clean, healthy water is a wonderful feeling. Water is immensely important in carrying out the activities of our daily lives. I am grateful to Mid-Dakota Rural Water System for providing my family and me access to a reliable and abundant supply of clean, quality water.

Benefits of Rural Water

By Kaitlyn Hague

Hague Ranch has been in my family for many years. We are a 4th generation ranching operation. It used to be that you had to keep your cattle where there was water, and you could only live where you could drill a well to get drinking water. Even with all of this work, the water that you received was often unclean and sometimes unsafe to drink. The development of rural water changed all of this. Now we can have clean water almost anywhere, which allows us to accomplish a lot more tasks.



For example it has spread out our grazing distribution between pastures. This is especially important to me since I live on a ranch. Now instead of having to keep our cattle where there is water, we are able to transport clean water to pastures in need. This allows my family to keep cattle on virtually any pasture. This makes it possible for us to handle larger numbers of cattle, and make the most of all of the land we have. It also eases our minds, because we do not have to search for natural sources of water, which are often times unclean. The cattle that now get their water from rural water are healthier, since the water that they are consuming is clean.

healthier. This helps make rural communities nicer to live in, which helps them expand.

Rural water also helps with the economic development of rural towns and cities, because they have a clean source of water to expand on. We no longer have to live where there is water. We can live wherever we want. Rural water allows us to not only have water anywhere, but also to have clean water. This is not only more pleasant, but

In addition to all of these amazing qualities of Mid-Dakota rural water it also helps create jobs. The communities where rural water is present they need someone to lay pipe, check water, and run the water systems. If something breaks down they need someone to fix it. All of these jobs help bring people into small rural communities, which in turn help boost the economies of rural communities.

These are all reasons why rural communities need Mid-Dakota rural water. It helps everything from cows to people. It also boosts their economic development, and jobs. I can honestly say that our communities would not be where they are at today without rural water.

...Scholarship essays continued on page 14



Rural Water – Vital to Rural America

By Brandon Haber

I live five miles west of Huron on an acreage. My whole family has benefited from Mid-Dakota Rural Water. Water is something we all take for granted. Every day, sometimes without even realizing it, we use water to go through our daily routine. From brushing our teeth, to watering the flowers, to giving drinking water to the dog, there are so many times that it is important to have good quality water.

Mid-Dakota Rural Water...where were you the first 7 years of my life. Wow! The money my parents would have saved, from the reverse osmosis system that had to be installed when I was born to the tons of softener salt we used. Then of course there was the iron. The rust would leave our clothes dingy. It would stain our bathtubs, sinks, and toilets. We even had to replace our dishwasher that became stained and corroded from the iron. My family has been involved with rural water since the early 70's when my Grandpa was instrumental in establishing a rural water system in the eastern side of the state. My dad was also involved with putting on informational meetings when Mid-Dakota was just getting started, so when it was available to sign up, my parents jumped at the chance. It is so much nicer now that we have good clean water from the Mid-Dakota Rural Water System.

Another benefit to my family of having Mid-Dakota Rural Water is that when we have lost electricity from storms, we still have water. I can recall losing power for more than ten days from an ice storm before we were a part of the Mid-Dakota System. We practically had to move to town with friends because we could not prepare meals or clean ourselves up. Luckily it had snowed and we could melt buckets of snow to be able to flush the toilets.

My family and I are so grateful to be a part of the Mid-Dakota Rural Water System. We can enjoy clean healthy water and know that it is not doing unnecessary damage to our household fixtures, clothes, and appliances. We don't know what we would do without it.

Water – Think Twice!

By Alyssa Stevens

When you think of drinking water what comes to your mind? Brownish, toxic water is probably not the first thought that comes to mind. But sadly, this is the case for people in Flint, Michigan, as their water is tainted with iron and lead. The town recently made a switch in the water source to save money; did they really know the disastrous consequences? The contaminated water could lead to dropping of IQs, negative behavioral changes (including criminality), and have multi-generational impacts. Can you imagine picking up a glass of water knowing that it could possibly be lowering your intelligence and leading you to an earlier death?



everyday living is not impacted by tainted water, many people in this world and even our own country are impacted by not having access to clean water. Clean water is the source for healthy living. It is the building block of nutrition for all age levels. The people in Flint are experiencing firsthand what can happen if clean water is no more. Although the city has switched back to its original water source, the pipes are still lined with lead. People have already consumed water that might cause health problems for years to come.

As I look at my own family and community, the impact of Mid-Dakota Water will be felt for generations to come. We live in the country and would need to have a well without the opportunity of Mid-Dakota. Most likely, my family would need to purchase or filter water to drink. Our animals would not be as healthy without the quality of water they receive. Our appliances, clothes, skin, hair-all are impacted by the quality of water that comes to our home. No one should take advantage of the gift of clean water. My hope is one day everyone will have the access to the level of quality of water as I do. Everyone deserves the clean, fresh water that Mid-Dakota Rural Water System offers.

Scholarship Application

Successful applicant will receive one of four \$500 scholarships. Applicant must be a child of a member of Mid-Dakota Rural Water System or a resident in one of Mid-Dakota's participating communities. The applicant must attend a South Dakota Post-Secondary educational facility and have a grade point average of 2.8 or higher (please provide a copy of transcript). This form must be completely filled out and a 250-500 word essay on what rural water has meant to the applicant or his/her community must be attached. A current photo is also required to be used for publicity purposes. Mid-Dakota reserves the right to print any and all essays that have been submitted.

Please fill out completely:

Name: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

Parent(s) Name(s): _____

Mid-Dakota Acct. #: _____ If no Account number, please state which participating community you are a member of: City of or Town of:

Grade point average: _____ (Remember to attach a copy of transcript)

College Applicant will be attending: _____
(must be a post-secondary education facility in South Dakota)

Career Applicant is pursuing: _____

School Activities: _____

Community Involvement: _____

Please compose and attach a 250-500 word essay about the benefits of rural water or what Mid-Dakota has done for you or your community (title is of your choosing). Deadline for the applications to be in the Mid-Dakota office is

5:00 p.m. April 1, 2017.

Send completed application, transcript, current photo and essay to:

Mid-Dakota Rural Water System, Inc.
Attn: Scholarship Committee
P.O. Box 318
Miller, SD 57362-0318

Quality On Tap!



Rate Table Effective January 1, 2016

Monthly minimum bill ¹	Monthly demand ¹	First Block	Second Block	Third Block
Rural Household 1 Unit				
\$40.00		33KG \$4.25/KG	Over 33KG \$6.00/KG	
Rural Household 2 Units				
\$50.00		10KG \$4.25/KG	56KG \$3.25/KG	Over 66KG \$6.00/KG
Rural Household 4 Units				
\$68.00		10KG \$4.25/KG	122KG \$3.25/KG	Over 132KG \$6.00/KG
Rural Household 6 Units				
\$85.00		10KG \$4.25/KG	188KG \$3.25/KG	Over 198KG \$6.00/KG
Livestock²				
\$300.00		300KG \$3.25/KG	Over 300KG \$6.00/KG	
Special User (Bulk) Class I & II³				
\$16.40	\$21.00		All Water \$0.50/KG	
Special User (Bulk) Class III⁴				
\$4.69	\$3.95	Up to contract \$0.50/KG	Over \$6.00/KG	

¹ Minimum bill and demand charges do not include any water.

² Rates and water shown in annual amounts

³ Minimum & demand charges apply to contract GPM per month.

⁴ Minimum & demand charges apply to population (or equivalent) per month.

After Hours or Emergencies
Call Mid-Dakota
TOLL FREE at: 1-800-439-3079
or call the answering service direct
at 1-888-545-7440



For online bill paying:
www.mdrws.com

MID-DAKOTA'S
MISSION STATEMENT
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LIFE BY PROVIDING HIGH
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April 2017 | 15

Mid-Dakota Rural Water System, Inc.

608 W. 14th St., P.O. Box 318

Miller, South Dakota 57362-0318

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WATER MATTERS

How Waterfalls are Formed

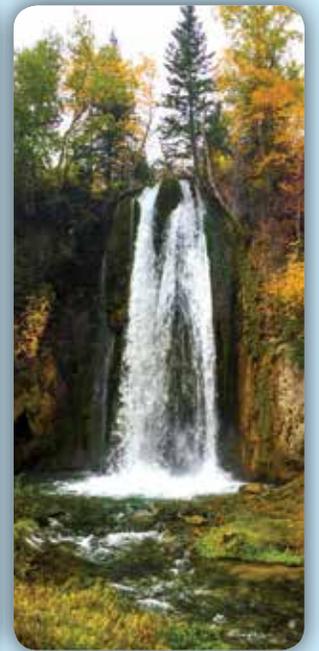


According to the dictionary, a waterfall is “a cascade of water falling from a height, formed when a river or stream flows over a precipice or steep incline.” Such a dry, academic description might well provide a workable technical definition, but it does little to convey the beauty of such features that have drawn the attention of people for ages. Waterfalls, both large and small, are the focal points of many national, state and local parks and scenic areas, ranging from the massive Niagara Falls along the St. Lawrence River to the modest Minnewissa Falls at the Pipestone National Monument 50 miles northeast of Sioux Falls.

In many cases, waterfalls form when fast-moving water passes over hard, resistant rock that transitions into softer, more easily eroded material. The harder capping rock is preserved (or eroded much more slowly), while the softer rock is quickly worn away. As a result, a step (geologists call it a nick point) develops in the river or stream, over which the water “falls.” Over time, the harder rock will also be eroded, and the waterfall moves slowly upstream. Chunks of the more resistant cap rock are often visible at the base of the waterfall. Roughlock Falls and Spearfish Falls along Little Spearfish Creek in the Black Hills are two good South Dakota examples of this type.

In other cases, the ledge over which the water “falls” is the result of a break in otherwise fairly uniform rock. Over millions of years, forces within the earth have created faults and fractures in the Sioux Quartzite, which is found across parts of southeastern South Dakota. These breaks have left behind a fairly irregular surface on the quartzite. When modern day rivers and streams flow across this surface, waterfalls and cascades develop where there are sharp transitions. The Falls of the Big Sioux River are an example, and led to the development of our states largest community. Rock Rapids, Iowa, got its name in a similar manner.

Next time you come across a waterfall, see if you can figure out just why it is there, but only after admiring what is taking place.



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