



MID DAKOTA
RURAL WATER SYSTEM

Quality On Tap!

April 2023 | Volume 18, Issue 4

THE STATE OF OUR WATERS

THE FIVE PRINCIPALS OF SOIL HEALTH

SAVE WATER IN THE YARD THIS SUMMER

FROM THE MANAGER

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



As 2023 begins, it looks like it will be very busy at Mid-Dakota Rural Water. First, I would like to congratulate and wish all the best to Wayne Ruhnke in his recent retirement from Mid-Dakota Rural Water. Wayne has been with Mid-Dakota since July 15, 1996 (27 years) and it will definitely be different not seeing him in the office every day.

Next, I mentioned how busy I believe it will be around here. Mid-Dakota already has 91 new hookups on the list to be installed. Keeping these hookups moving forward with materials and organizing with a contractor's schedule is a large challenge. Mid-Dakota also received approval for a funding package from DANR that we have been working on the paperwork and final approvals for over a year. I hope that the paperwork on front-end documents will be finalized in the first three months of 2023 so Mid-Dakota can enter the bidding phase to see actual numbers and to see how far our funding package will go towards completing full project.

Mid-Dakota has several different areas of upgrades to our system in this project. First is to upgrade filters and add a backwash recovery filter at the Water Treatment Plant to help make it more sufficient and increase the total gallons produced each day. Our distribution system also needs some upgrades to continue to grow in the tune of around 120 miles of additional pipeline to help sustain pressures to the ends of the system. Also, Mid-Dakota has been forced to upgrade our Automatic Meter Read system due to company failure. We are going to install this with our own staff and will be done over several years as it will take all new collectors and end points at each meter. I want to thank everyone in advance for their patience and cooperation through this transition.

All in all, I believe this will be a very busy year at Mid-Dakota and an exciting one with all that is happening. Don't hesitate to call with any questions or concerns.



MISSION STATEMENT
Enhancing quality of life
By providing high quality water
And excellent service.

Quality On Tap!

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WAYNE RUHNKE RETIRES

Wayne started employment with the company on July 15, 1996 and returned on February 3, 2023 after 26 ½ years on the job. He worked in the easement department for one year along with operations at the Mid-Dakota Water Treatment Plant for three months exercising the pumps and motors and chlorinating the water that we had in captivity until the hiring of the water treatment plant personnel. While working in the office in Miller, he was the maintenance man snow shoveling, changing light bulbs and air filters, working on toilets, etc.

He was the first water distribution pipeline inspector working under the direction of Lyle Schumack, Chief Resident Inspector for Bartlett & West Engineers of Bismarck, ND. Wayne did pipeline inspection for four years working out of the individual field offices located in Blunt, Gettysburg, Highmore and Polo.

In the spring of 2001, Wayne was assigned to the Miller office as the O&M Coordinator. He was then responsible for permits and licenses which included working with the Corps of Engineers, FCC, SD GF&P, various wind farms, SD Department of Transportation road projects, WAPA, various railroad companies, electrical utilities and other water utilities. Wayne was in charge of the GIS program and dealt with ESRI, Trimble, and OmniSTAR. He was the liaison between these companies and Mid-Dakota's various water distribution operators trying to overcome the trails



and tribulations as they arose. Wayne also GPS surveyed new users for about a year.

Wayne was responsible for the maps of our system. He added new services and new pipeline routes to the maps along with name changes, user classifications, conversions, disconnections, reconnections and deletions as they occurred. These prior duties actually were secondary to the priority job of SD One Call locates. His duty was to receive, read the locate discretion, clear if possible then send it out to the appropriate operator. We can send the ticket to the operator who can read the ticket on his iPad and can also see the location near his pipeline. It is truly amazing to have been there on this ride with

technology. It has all but eliminated paper maps.

Wayne holds a Class 3 Water Distribution certificate and a Class 1 Wastewater Collection certificate which enabled him to participate in the Water Distribution on call roster. He was in charge of vehicle license plates, registration and insurance cards for the entire fleet of vehicles.

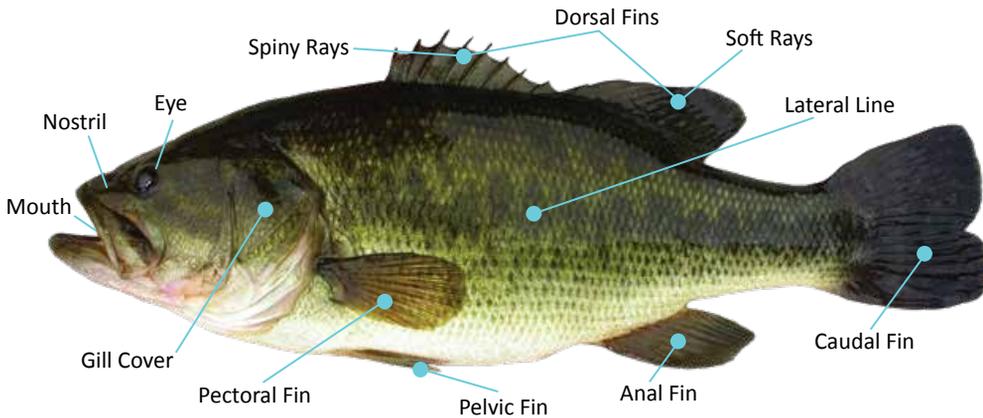
Wayne and his recently retired wife Shar plan to spend more time with family and do some traveling. He is looking forward to some fishing, gardening and continuing to work on his 20 year house remodeling project. One adventure that Wayne is eager to experience was best explained to him by one of his lifelong friends – "I want to do some mechanic work – I need to put a new rear-end in my recliner!"



NEW HIRE

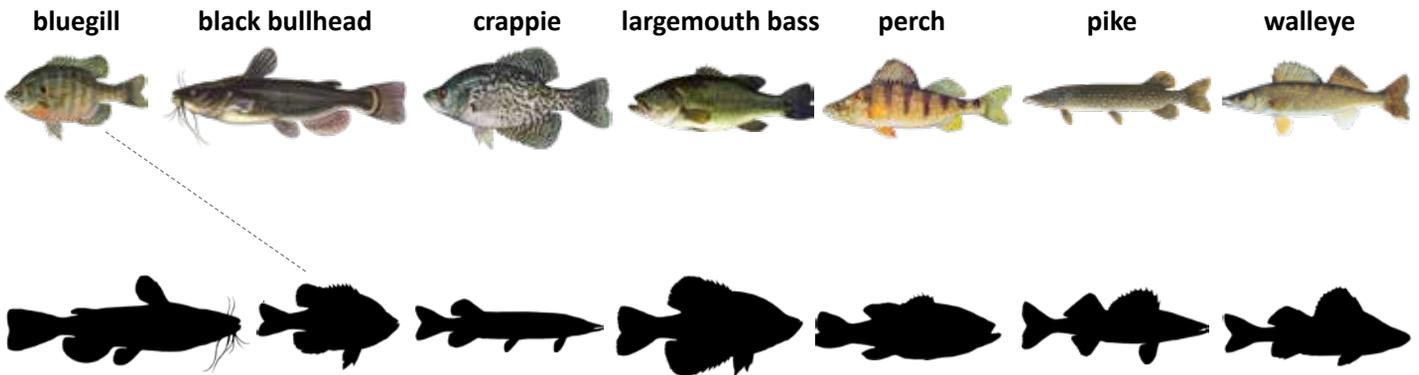
Gage Russell graduated from Miller High School in 2019. Afterwards, he went to work at Builders Solutions for a short while then went to work for Jones Construction pouring concrete. In April 2022, he applied for the summer help internship at Mid-Dakota and was hired. On January 1st, 2023 he accepted a full-time position with Mid-Dakota as a Water Distribution Associate Specialist. Gage commented that he has learned a lot from riding with the operators during the summer. He says he is looking forward to serving our communities and rural families while working alongside some great people.

FISH OF SOUTH DAKOTA



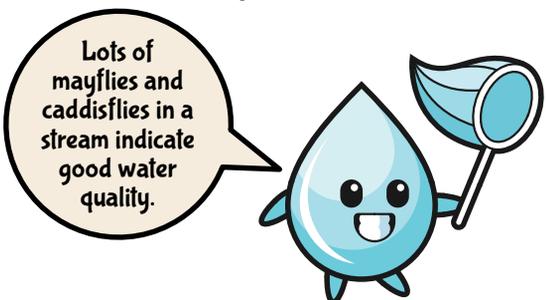
South Dakota is home to more than 100 fish species. Most are native which means they are naturally occurring and self sustaining. Common carp is a non-native species in our watershed. Carp were brought to the United States from Eurasia many years ago. Bighead carp and silver carp are invasive species in lakes and rivers in South Dakota. Invasive species are not native and cause harm to the river ecosystem.

CAN YOU IDENTIFY EACH COMMON NATIVE FISH FOUND IN SOUTH DAKOTA WATERS BY MATCHING THE FISH TO ITS SILHOUETTE?

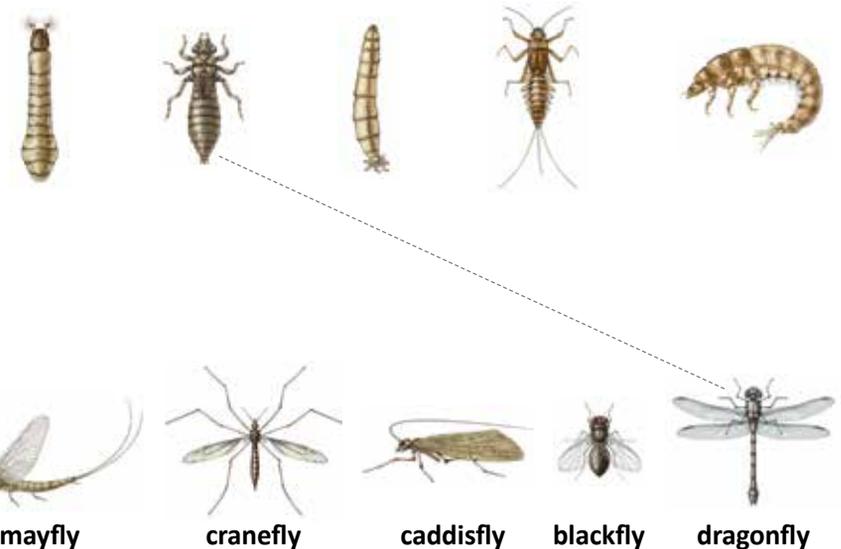


AQUATIC MACROINVERTEBRATES

Aquatic = Water • Macro = Big • Invertebrate = No Backbone



CAN YOU MATCH THE LARVAE WITH THE ADULT?



An **aquatic macroinvertebrate** is a small organism with no internal skeletal system, that we can see with our naked eye, and that live part or all of their life in water. Some examples are insect larvae, snails, worms, and crayfish. Each type can tolerate certain conditions and levels of pollution. Because of this, they are excellent indicators of water quality and can help scientists determine if a lake or stream is healthy. They are also an important food source for fish.

Tommy Moorman – www.northernid.com

SAVE WATER IN THE YARD THIS SUMMER

AS TEMPERATURES RISE IN THE SUMMER, SO DOES OUR OUTDOOR WATER USE
— MOSTLY ON LAWNS AND LANDSCAPES

29 BILLION GALLONS of household water is used daily across the U.S.



Depending on the region, homeowners use **30-60%** of their water outdoors



9 BILLION GALLONS

come from daily residential outdoor water use, mainly for landscape irrigation

60% of that is wasted, in part, due to overwatering.



The average family's water use is

320 GALLONS PER DAY



During the summer, it can be up to

1,000 GALLONS PER DAY



Some even use up to **3,000 GALLONS PER DAY**



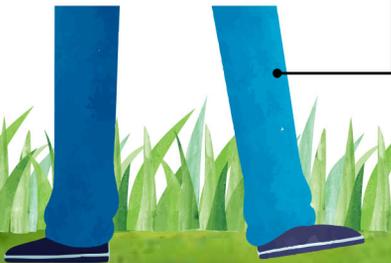
... equal to leaving a garden hose running for nearly **8 HOURS!**



SIMPLE THINGS WE CAN ALL DO

STEP ON IT:

Step on the lawn: If the grass springs back, it doesn't need water.



Timing is everything. Plan to water in the early morning or evening to beat daytime evaporation

TAKE A SPRINKLER BREAK:

Grass isn't really meant to be bright green in the summer.

Make sure you're watering the lawn, not the sidewalk or driveway!

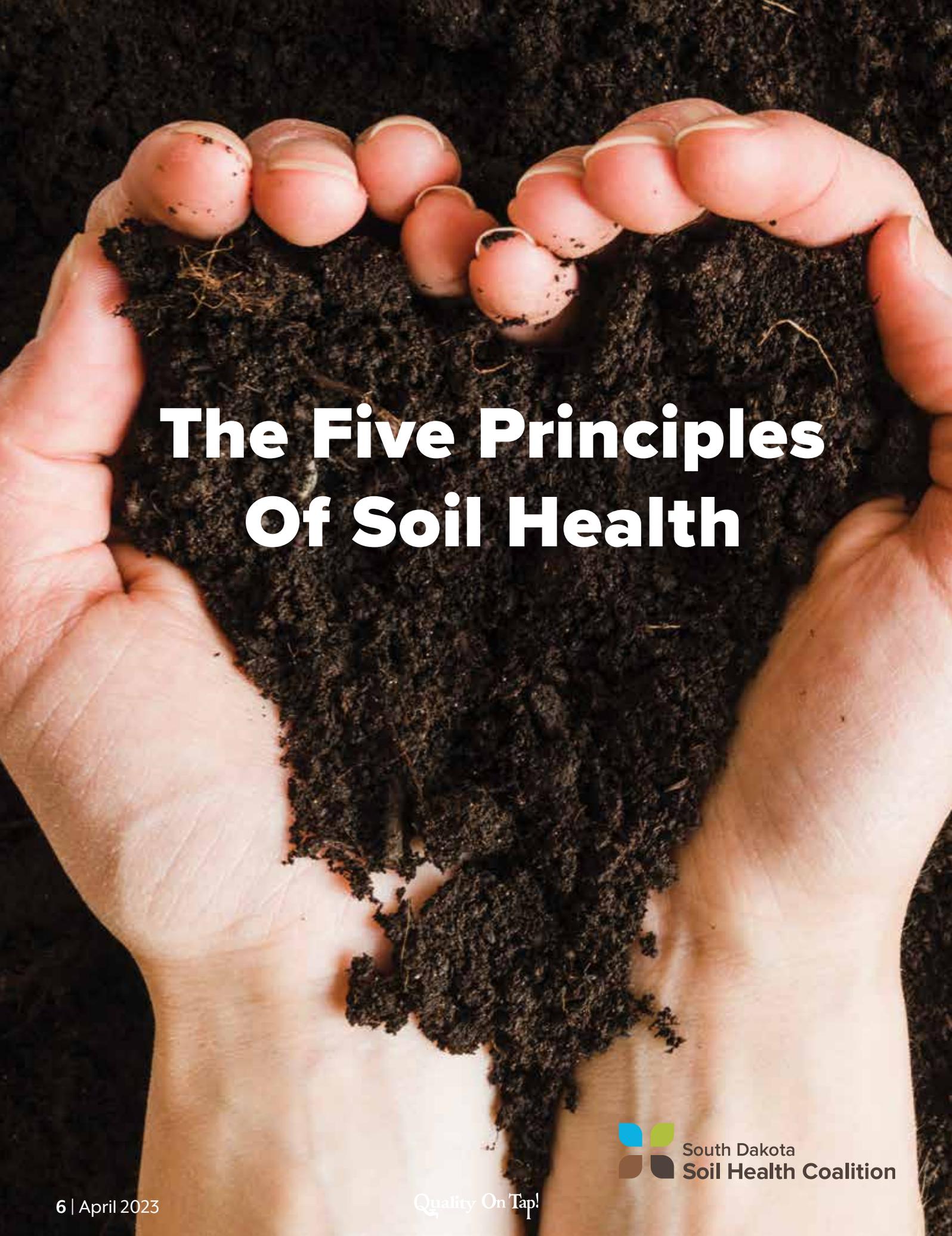


LEAVE IT LONG: Longer grass promotes a more drought-resistant lawn, reduced evaporation, and fewer weeds.

TUNE UP YOUR SPRINKLER SYSTEM: Inspect irrigation systems, and fix leaks and broken or clogged sprinkler heads. Just one broken sprinkler head could waste up to 25,000 gallons of water over a 6-month irrigation season



WaterSense, a partnership program by the U.S. Environmental Protection Agency, seeks to protect the future of our nation's water supply. For more tips on reducing outdoor water use, visit epa.gov/watersense/outdoor.



The Five Principles Of Soil Health



Soil Cover: *Keep plant residues on the soil surface.*

Look down, what percentage of your soil is protected by residue? Erosion needs to be minimized before you can start building soil health.



Limited Disturbance: *Minimize tillage as much as possible.*

You will start building soil aggregates, pore spaces, soil biology, and organic matter.



Living Roots: *Keep plants growing throughout the year to feed the soil.*

Cover crops can add carbon to the soil, provide a great food source for micro-organisms. Start small to find the best fit for your operation.



Diversity: *Diversify as much as possible with 3 or more crops and cover crops whenever possible.*

Try to mimic nature by including cool and warm season grasses and broad leaf plants. Three or more crops in rotation benefits the soil food web, improves infiltration, nutrient cycling, reduces disease and pests, and aids in weed suppression.



Integrating Livestock:

Fall/winter grazing of cover crops increases livestock's plane of nutrition at a time when pasture forage quality can be low, increases the soil biological activity on the cropland, and improves nutrient cycling. Proper grassland management improves soil health.

Soil Health Benefits

Builds organic matter which retains and cycles nitrogen and sequesters carbon; which in turn reduces fertilizer and fuel costs.

Stabilizes soil aggregates which improves resistance to erosion by wind and water.

Improves water infiltration and retention which helps to better manage the effects of flood or drought and improves trafficability on cropland fields.

Enhances wildlife habitat and balances the biological community above and below ground.

Healthy soils filter and clean water that moves through it, for improved water quality.

THE STATE OF OUR WATERS

Jay Gilbertson, East Dakota Water Development District

Every year, the people of South Dakota, along with thousands of visitors, make use of the many and varied water resources of the state. Rivers and lakes are tapped by public water suppliers and private citizens for drinking water; irrigation provides water to crops and lawns to augment natural precipitation; anglers scour our lakes and streams in search of fish; and young and old enjoy a quick dip to escape the heat of summer. All of these activities are things we take for granted, but how do we know that the water on which we depend is really up to the task?

The South Dakota Department of Agriculture and Natural Resources (DANR), in cooperation with the United States Environmental Protection Agency (EPA), has identified a number of general classes of activities, known as beneficial uses, for the waters of the state. These are:

1. Domestic water supply;
2. Coldwater permanent fish life propagation;
3. Coldwater marginal fish life propagation;
4. Warmwater permanent fish life propagation;
5. Warmwater semipermanent fish life propagation;
6. Warmwater marginal fish life propagation;
7. Immersion recreation (swimming);
8. Limited contact recreation (boating and fishing);
9. Fish and wildlife propagation, recreation, and stock watering;
10. Irrigation; and
11. Commerce and industry.

All rivers and streams in South Dakota are assigned the beneficial uses (9) and (10) unless otherwise stated in the Administrative Rules of South Dakota (ARSD) Chapter 74:51:03. Lakes listed in ARSD Chapter 74:51:02 are assigned the beneficial uses of (7), (8) and (9) unless otherwise specified. These water bodies may also be assigned additional beneficial uses depending on local conditions.

For each beneficial use, DANR and EPA have established measurable standards (numeric criteria) to determine if the use can be safely met. For example, if the intended use is Immersion Recreation (swimming), bacteria counts in the water must be below a certain level and dissolved oxygen must be over a particular level. If the water body is to be used as a domestic water supply, concentrations of nitrate, sulfate, total dissolved solids, and other constituents cannot exceed specific levels. Temperature and suspended solids are the primary criteria used to evaluate suitability for the fisheries classifications, (2) through (6).

If 90% or more of the analyses from a particular water body meet the numeric criteria, then the resource is considered fully supporting of the designated use. It should be noted that a “fully supporting” designation does not necessarily mean that there were no problems found. It just means that if they were, they were few and far between, and not considered a serious risk to human health and safety. However, if violations of the numeric criteria are frequent (>10%), then the water body is considered impaired, and not supporting one or more of its intended uses.

Every two years, DANR assembles water quality information on the rivers, lakes and streams of the state. The purpose of this report is to assess the water quality of South Dakota’s water resources and to identify the impaired water bodies. This report meets the requirements of Sections 305(b), 303(d), and 314 of the federal Clean Water Act, which mandate a biennial report on state water quality be submitted to Congress. This report is also intended to inform the citizens of South Dakota on the status of the quality of their water resources. Finally, it serves as the basis for management decisions by natural resource agencies and interested stakeholders to plan and prioritize water pollution control activities. The report is published in even-numbered years. The most recent (2022) South Dakota Integrated Report for Surface Water Quality Assessment is available on the DANR website: danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_2022_IR_approved.pdf

The Integrated Report breaks the State into fourteen major watersheds. It shows the name and location (county) of each lake and river/stream segment for which information is available. Each specific beneficial use is listed, along with whether or not it is meeting the intended use. In some cases, most often for immersion and/or limited contact recreation, there is insufficient information on which to determine if the use is supported or not. If an impairment exists, the cause is given, and where possible, potential sources of the problem are listed.

In the 2022 Integrated Report, excessive amounts of bacteria (primarily from livestock) and total suspended solids (agricultural and natural sources) were the most common sources of impairments to recreational and fisheries/aquatic life uses respectively. Another significant impairment is mercury found in fish flesh, although as this is mostly attributed to atmospheric deposition from out-of-state sources, local corrective measures may be of limited effectiveness.

So, what happens when an impairment is found? Once a

water body is determined to be impaired, DANR is required to conduct a more thorough investigation to better identify the source(s) of the impairment(s). Although the State maintains a network of over 150 surface water monitoring locations on rivers and streams, and annually samples about 35 lakes, their efforts are designed to function largely as screening tools. Rarely does this system provide sufficient information so that a particular problem can be effectively identified and treated.

These detailed investigations result in the development of something called a total maximum daily load, or TMDL. A TMDL represents the amount of a particular contaminant that can enter a water body in a given day without the beneficial use being impaired. A comparison of the actual pollutant load and the TMDL can give a pretty good idea of the amount of effort needed to correct the problem(s). A TMDL report will include recommendations for what actions may be necessary to address the problem(s) and to reduce the pollutant loadings.

In most cases, non-point source (NPS) pollution sources are responsible for identified impairments. NPS pollution, as its name implies, results from the cumulative impact of many small activities across a watershed, as opposed to emanating from a single, readily identifiable location (point source). In South Dakota, where agriculture dominates the economy, it is no surprise that a significant amount of the NPS pollution is ag related. However, municipalities and commercial and residential areas can also be significant contributors, and in some instances, natural sources have caused impairments.

Once a TMDL report has been prepared, DANR works with interested local natural resource agencies and others to develop a project to address the problems. Referred to as watershed implementation projects, they utilize local, state and federal fiscal and technical resources to put into place voluntary changes to problematic land use practices. The changes, or best management practices (BMPs), are designed to allow the landowner to continue to use their property in a manner they desire, while also eliminating, or at least minimizing, adverse impacts on the public water bodies. In most cases, adoption of BMPs results in improved efficiency and productivity, as well as reducing pollution potential. However, in recognition of the very real public benefit derived from BMP implementation, projects provide cost-share assistance of up to seventy-five percent (75%) to willing landowners.

The BMPs that may be promoted by a particular project can vary depending on the type(s) of impairment(s) and likelihood of adoption. After all, the best solution is

no good unless someone is interested in putting it into practice. Examples of BMPs supported by watershed implementation projects around the state include: upgrading animal waste management systems, installing terraces and grassed waterways, irrigation system upgrades, river bank and shoreline stabilization, long-term or permanent easements along rivers and streams, and public awareness and education. Most projects also have a water quality monitoring component to measure impacts on impaired waters.

Unfortunately, there is rarely a single action, or small set of changes, that can alter the status of a water body. NPS pollution comes from many places over a large area, and so “fixing” such problems involves implementing many BMPs across the watershed. As a result, watershed restoration projects may need to put in place hundreds of BMPs to affect change. The problems they are seeking to correct developed over many years - fixing them can also be a long-term, and very expensive, commitment.

Efforts to address known water quality impairments are currently active in nearly every major watershed in South Dakota. The Big Sioux River Project has developed innovative riparian buffer activities that are having demonstrable impact on water quality in the most heavily used watershed in the state. The Belle Fourche River Partnership is working to improve irrigation efficiency, and a subsequent reduction in field runoff. The South Central Watershed Project provides guidance and assistance to landowners in the Vermillion and James River basins, along with the

watershed of Lewis & Clark Lake, spanning territory from Clearfield to Canova. These are just a few of the efforts underway.

Where do things go from here? DANR, the East Dakota Water Development District and other natural resource agencies continue to monitor the status of our water bodies. For the most part, the problems that have been identified, while real and requiring corrective efforts, do not represent significant threats to human health and safety, provided a little common sense is exercised. Drinking water impairments are rare, and with the ever increasing improvements in treatment technology, public water supplies are unlikely to be seriously harmed. (Provided we are prepared to pay treatment costs.)

What can you do? As noted above, most of the problems arise from NPS pollution. Every one of us can be, or is, a source, so each of us should look at what we might be doing and how to make things better. Never has the old adage, “An ounce of prevention is worth a pound of cure,” been more relevant.

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The first documented and recorded minutes for the formation of the Bear Butte Valley Rural Water System (BBV) located east and north of the town of Sturgis were recorded on April 2, 2009. The organizational meeting was the culmination of several telephone calls from Neal Rowett, a rural area resident, to the South Dakota Rural Water Office located in Spearfish. “If I recall the first conversation, said George Vansco, “it went something like this: ‘Are you the guy who can help a bunch of rural area ranchers and homeowners start up a water system?’” The reason for his interest in starting a new system stemmed from a concern over poor water quality due to the local creek picking up undesirables as it weaved its way through the town of Sturgis. Bear Butte Creek has allowed some owners the benefit of drilling shallow wells near the creek while others were forced into deeper aquifers at a much higher cost.

With a desire to provide the area with quality drinking water; the next steps were getting local area residents involved and beginning to search for funds enabling them to conduct

a feasibility study. After attending several Meade County Commission meetings and bringing the idea of developing another west river water system to the Department of Environment and Natural Resources (DENR), the steering committee decided to incorporate as a non-profit.

Five days after the first documented meeting, Bear Butte Valley Water was incorporated on May 7, 2009. At this meeting the following board members were elected: Neal Rowett, President; Robert Yantis, Vice-President; Bruce Weyrich, Secretary/Treasurer; Clair Rowett, Director; Don Chord, Director; Jesse Whitford, Director. As the years have passed, some directors dropped off the board and others were newly elected – but the majority of the board has remained the same.

While it takes most water systems about 30 years from inception to completion, Bear Butte Valley Water has been on the fast track. After receiving their certificate of incorporation on May 7, 2009, they received funding from



the state just a year later. Incorporating allowed them to get an initial \$7,500 in planning funds, which they used to pay DGR Engineering to draw up plans for the system. Total project costs in 2010 were estimated at \$5.1 million.

In April of 2010, BBV was given the go-ahead from USDA Rural Development to apply for loans after an archaeological study was conducted. A \$500,000 grant was received from the State of South Dakota through the Consolidated Water Facilities Construction Program to begin the project. The initial cost for those interested in hooking up to the system was \$1,500/connection. Meetings continued to be held to determine where the best source of water would come from. Proposals came in from cities, individual landowners, campgrounds and others, while drilling a well for the system was also looked at as an option.

USDA Rural Development awarded Bear Butte Valley Water, Inc. with a water and environmental loan in the amount of \$2,917,000, and a grant of \$2,000,000 in January of 2014. The State of South Dakota also kicked in additional funding through a \$1,500,000 grant, an additional \$500,000 was acquired from DENR, and USDA Natural Resources Conservation Service provided significant funding through its EQIP program to provide water for livestock. Through this funding, construction was planned to expand the system to 150 miles of distribution pipeline, with water available to 220 users and 150 service locations upon completion.

A ground breaking ceremony was held on June 24, 2015 to commemorate the awarding of bids to complete the entire rural water system – including installing 110 miles of pipeline, storage reservoirs, and pumping stations. Bruce Jones – USDA Rural Development Acting State Director, and Jacqueline M. Ponti-Lazaruk – USDA Rural Development Assistant Administrator for the Water and Environmental Program in Washington, DC, were on hand at the ground breaking to announce additional funding of a \$200,000 loan coupled with a \$2,527,000 grant to complete the system. Representatives from the Congressional offices, the South Dakota Association of Rural Water Systems, Meade County Commissioners, the engineer, and Sturgis Economic Development were also on site for the ground breaking activities.

Said Neal Rowett, Board President of BBV Water, Inc. “This accomplishment is the result of many days, weeks, and years of service and perseverance by a dedicated board of directors, along with the help of professional guidance received from our engineering partners and South Dakota Rural Water. We appreciate the support of the community for the confidence these people have shown in our efforts. Bear Butte Valley Water is a community owned, non-profit corporation that will serve its members for many future generations. It is with great pride that we will be providing drinking water of excellent quality with enough volume and pressure to fulfill the needs of our members.”

The most recent construction project included 252 services, 146 miles of pipe at a cost of \$11.4 million. The project was funded in part with a \$3.1 Million WEP loan and \$4.5 Million grant. The South Dakota Department of Environment and Natural Resources provided \$2,000,000 grant under the Water Facilities Construction Program. Additionally, 28 livestock producers in the area have joined together with the Natural Resources Conservation Service to secure Environmental Quality Incentives Program (EQIP) funding for using rural water service to improve the environmental quality of their livestock operation. The available funding to the water system

BOARD MEMBERS:

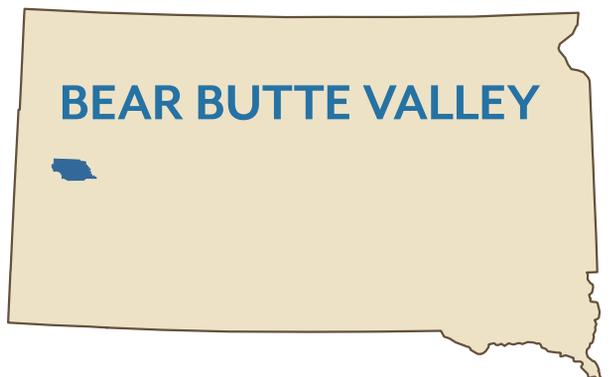
- Bruce Weyrich – President
- Ed Blair – Vice-President
- Bob Kaufman – Secretary/Treasurer
- Clair Rowett – Director
- Randy Hallock – Director
- Rich Grosch – Director
- Brook Looby – Director

STAFF:

- Dennis Kinslow – Manager

SYSTEM AT A GLANCE

- Service Connections: 275
- Water Source: wells
- Counties Served: Meade



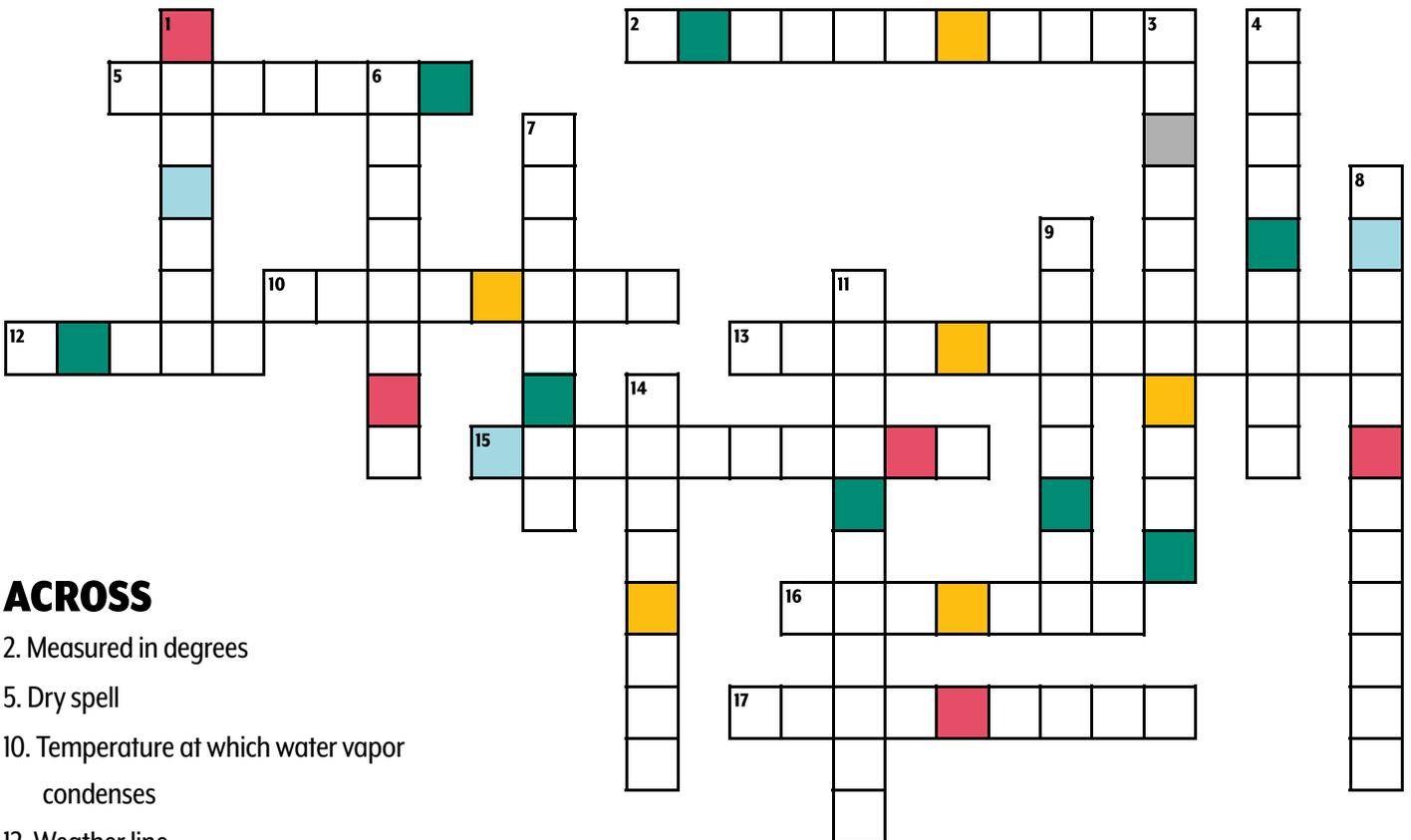
through the EQIP program is approximately \$1.1 Million. The remaining funding came from local sources and the customers of BBVW. The well was completed in 2014, the tanks and pump stations in early 2016 and the pipeline was complete at the end of 2016. BBVW is now providing rural water service to their 309 members with an additional 30 in the works. These new customers will be included in a new 25-mile line of pipe in the Alkali road project, which is funded by Rural Development. A standby well and new booster station and storage tank are also planned. We have let bids for the well at \$1,335,000 and the line extension at \$3,076,815. The tank and booster will follow soon.

RURAL WATER CROSSWORD & WORD SCRAMBLE CONTEST

CLIMATE



SCRAMBLE ANSWER



ACROSS

- 2. Measured in degrees
- 5. Dry spell
- 10. Temperature at which water vapor condenses
- 12. Weather line
- 13. Rain, snow, sleet, or hail
- 15. The air in any particular place
- 16. Violent rotating windstorm
- 17 Environmentalists concern

DOWN

- 1. Process of wearing away
- 3. Process of turning liquid into vapor
- 4. Freezing weather factor
- 6. Long hot spell
- 7. Air Dampness
- 8. Loud weather event
- 9. White storm
- 11. Study of Weather
- 14. Prediction

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 15, 2023 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 Randy Stanley with the BDM Rural Water System who had the correct phrase of "The secret ingredient is love" for January 2023.

IT'S TIME TO TALK PFAS

Kevin Christenson – Source Water Protection Specialist,
South Dakota Association of Rural Water Systems

Almost everywhere you go, especially in the water industry, people cringe and cuss when you mention the word PFAS. At the same time, talking with people at ball games, the grocery store, and various other businesses in their communities, I've found that people outside the water industry know just bits and pieces about PFAS. Hopefully, I can help with some of the "bits and pieces."

What is PFAS?

Per and Polyfluoroalkyl Substances, also known as PFAS, are a large, complex group of manufactured chemicals that are ingredients in various everyday products. For example, they keep food from sticking to packaging or cookware, make clothes and carpets resistant to stains, and create more effective firefighting foam. PFAS are also used in the aerospace, automotive, construction, and electronics industries.

PFAS molecules have a chain of linked carbon and fluorine atoms. Because the carbon-fluorine bond is one of the strongest, these chemicals do not degrade quickly or easily in the environment, so they are often labeled the "Forever Chemical."

Why be concerned about PFAS?

Multiple health effects associated with PFAS exposure have been identified and are supported by different scientific studies. Concerns about the public health impact of PFAS have arisen for the following reasons:

- Widespread occurrence. Studies find PFAS in the blood and urine of people, and scientists want to know if they cause health problems.
- Numerous exposures. PFAS are used in hundreds of products globally, with many opportunities for human exposure.
- Persistent. PFAS remain in the environment for an unknown amount of time.
- Bioaccumulation. People may encounter different PFAS chemicals in various ways. Over time, people may take in

more chemicals than they excrete, which leads to body bioaccumulation.

Because there are many PFAS chemicals, which often occur in complex mixtures and various everyday products, researchers face challenges in studying them.

More research is needed to understand all exposure sources fully and if and how they may cause health problems.

The research reveals possible links between human exposure to PFAS and adverse health outcomes. These health effects include altered metabolism, fertility, reduced fetal growth and increased risk of being overweight or obese, increased risk of some cancers, and reduced ability of the immune system to fight infections.

The Safe Drinking Water Act (SDWA) requires that once every five years EPA issue a list of unregulated contaminants to be monitored by public water systems. Unregulated Contaminant Monitoring Rule (UCMR5) requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by EPA and consensus organizations.

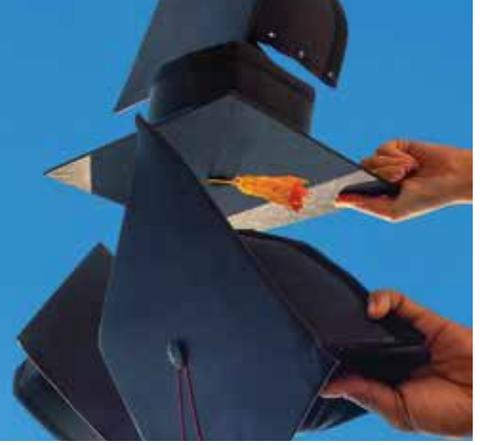
This action provides EPA and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. UCMR 5 will provide new data that is critically needed to improve the EPA's understanding of the frequency that 29 PFAS (and lithium) are found in the nation's drinking water systems and at what levels. This data will ensure science-based decision-making and help prioritize the protection of disadvantaged communities.

Nationwide, all PWSs serving more than 10,000 people (i.e., large systems) will monitor; all PWSs serving 3,300 to 10,000 people and 800 representative PWSs serving fewer than 3,300 will monitor for PFAS, subject to availability of appropriations and sufficient laboratory capacity.

The South Dakota Association of Rural Water Systems has partnered with the South Dakota DANR. By doing so, SDARWS has taken a lead role and will be collecting the samples required by the UCMR5 in South Dakota, with the thought of keeping sampling protocols and procedures consistent and easing the sampling burden on communities and systems.



MID-DAKOTA SCHOLARSHIP APPLICATIONS DUE APRIL 1, 2023



Every year for the last 15 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 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. The application can be found below, online at www.mdrws.com, or at the Mid-Dakota office in Miller. Copies of the application 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.

Official Application - 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: _____

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, 2023.

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

All applicants will receive a letter letting them know whether or not they were chosen to receive a scholarship. A \$500 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.

GARY TOBIN RECEIVES STOFFERAHN MEMORIAL AWARD



Scott Gross, Gary Tobin, Jeff McGirr

Our second annual Mike Stofferahn Memorial Award recipient is Gary Tobin. Mid-Dakota employees are nominated by their peers for this award. Mike Stofferahn started work for Mid-Dakota Rural Water as an inspector in 1997 where he worked until the tragic automobile accident near Cottonwood Lake August 31, 2001. Mid-Dakota staff along with directors congratulated Gary Tobin for being the second recipient of this prestigious award.

SDARWS AWARDS MCGILLVREY

The South Dakota Association of Rural Water Systems (SDARWS) presented Jim McGillvrey, with the Carroll Anderson Memorial Award. The Carroll Anderson Memorial Award is a tribute to the dedicated work of Carroll Anderson, who gave generously of his time, talents, and efforts to the Kingbrook Rural Water System and the South Dakota Association of Rural Water System. This award represents the greatest tribute the association can bestow on an individual to recognize their contributions to their member system and South Dakota Rural Water. Jim has been a member of Mid-Dakota's board since 2005 and acted as chairman from 2014 to 2020. We are glad to have Jim working with us and would like to congratulate him again on this prestigious award.



Jim McGillvrey

MID-DAKOTA CALENDAR

The Mid-Dakota Rural Water System offices will be closed on the following dates:

May 29, 2023 – Memorial Day

June 19, 2023 – Juneteenth

In case of an emergency, please call the office Toll Free at 1-800-439-3079, or call our After Hours answering service direct at 1-888-545-7440.



Rate Table Effective January 1, 2023

501 Residential 1-Unit

\$43.00	per month minimum bill
\$5.30	per 1,000 gallons 1st 33,000
\$7.55	per 1,000 gallons over 33,000

502 Rural Household 2-Units

\$53.00	per month minimum bill
\$5.30	per 1,000 gallons 1st 10,000
\$4.24	per 1,000 gallons next 56,000
\$7.55	Per 1,000 gallons over 66,000

504 Rural Household 4-Units

\$71.00	per month minimum bill
\$5.30	per 1,000 gallons 1st 10,000
\$4.24	per 1,000 gallons next 122,000
\$7.55	per 1,000 gallons over 132,000

506 Rural Household 6-Units

\$88.00	per month minimum bill
\$5.30	per 1,000 gallons 1st 10,000
\$4.24	per 1,000 gallons next 188,000
\$7.55	per 1,000 gallons over 198,000

511 Livestock

\$31.00	per month minimum bill
\$4.24	per 1,000 gallons 1st 300,000 (per year)
\$5.30	per 1,000 gallons 301,000 to 700,000 (per year)
\$7.55	per 1,000 gallons over 700,000 (per year)

161, 162, 164, 165 Special Class I & II

\$16.40	per GPM per month minimum bill
\$27.00	per GPM per month demand charge
\$0.59	per 1,000 gallons

163, 166 Special Class III

\$4.69	per Pers (equiv) per month minimum bill
\$5.35	per Pers (equiv) per month demand charge
\$0.59	per 1,000 gallons up to contract amount
\$7.55	per 1,000 gallons over contract amount

1 Minimum & demand charges do not include any water.
 2 Livestock (511) water allocations are annual use, not monthly.
 3 "equivalent" population "person" = contract GPD ÷ 270

After Hours or Emergencies
 Call Mid-Dakota
 TOLL FREE at: 1-800-439-3079



For online bill paying:
www.mdrws.com





Mid-Dakota Rural Water System, Inc.
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WATER MATTERS

Aquatic Invasive Species - Zebra Mussels Part I

Although South Dakota lacks the '10,000 lakes' our neighbor to the east likes to talk about, the rivers, lakes and streams that we do have are important and treasured water resources. Given the relative scarcity, it might be argued that we should put more effort into the protection of what few water bodies we do have.

Aquatic Invasive Species (AIS) - As the name implies, the plants and animals that make up AIS in South Dakota are not native to the area. Consequently, they often lack natural predators or other controls on their growth and distribution. Under the right conditions, they can quickly take over a water body by out competing native species. Because they are not native, AIS need to be introduced to new territories. Sometimes this is done intentionally, but most often the introduction is the unintended consequence of some other action.

Zebra mussels, a fingernail-sized mollusk that is native to fresh waters in Eurasia, is an example of an AIS that is drawing a lot of attention in South Dakota. They probably arrived in the Great Lakes in the 1980s via ballast water that was discharged by large ships from Europe, and have spread rapidly throughout the Great Lakes region. From there, they spread into the large rivers of the Mississippi River drainage, including the Missouri River. Currently (March 1, 2023), zebra mussels are found in over a dozen water bodies in South Dakota.

Aquatic invasive species can cause recreational, economic, and ecological damage, potentially changing how residents and visitors use and enjoy South Dakota waters.

Zebra mussel impacts:

- Encrust equipment, such as boat motors and hulls, which reduces performance and efficiency and is costly to clean and repair.
- Swimmers and pets can cut their feet on zebra mussels attached to rocks, docks, swim rafts and ladders.



- Create a costly problem for power plants, cities and residents when they clog water intakes.
- Filter tiny food particles out of the water, which can reduce available food for larval fish and other animals, and can increase aquatic plant growth as a result of increased water clarity.
- Attach to and kill native mussels.

To provide information about AIS in South Dakota, the South Dakota Department of Game, Fish & Parks has established a website: <https://sdeastwanted.sd.gov/>.

BACK PAGE CONTENT PROVIDED BY:



EAST DAKOTA
WATER
DEVELOPMENT
DISTRICT

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