JULY 2024 | Southern Iowa Rural Water Association

QUENCH

news by the glassful

In this Issue...

CITY OF MINDEN

"BENT NOT BROKEN"

CONTENT

QUENCH
news by the glassful

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QUENCH Magazine is published 2 times per year by the Iowa Rural Water Association (IRWA). The magazine is distributed by mail to IRWA members' consumers.

The IRWA Mission: To provide the highest leadership in the support of Iowa's water and wastewater industries through the provision of technical assistance, training and education, legislative, regulatory and public affairs, and financing activities.

on the cover

Chasing Down Leaks 3

2024 Annual Meeting of the Membership 5

EPA Lead And Copper Rule Revision / 2023 Consumer Confidence Report 6

SIRWA Customer Water Service Line Material Survey 7

City of Minden: Bent Not Broken 8

Iowa Drought Recovery Summary 10

Six Ways to Conserve Water 11

Water Matters: Water and Wastewater Workers of Iowa Week 12

Magazine design and printing provided by:

Sutherland Printing
P O Box 550
525 North Front Street
Montezuma, Iowa 50171

CHASING DOWN LEAKS

DID YOU KNOW

that easy to fix water leaks account for nearly 1 trillion gallons of water wasted each year in U.S. homes? In fact, the average household leaks nearly 10,000 gallons of water per year, or the amount of water it takes to wash 300 loads of laundry, and could be costing you an extra 10 percent on your water bills.

In just 10 minutes, you can search your home for leaks and crack down on water waste. Many common household leaks are quick to find and easy to fix. Worn toilet flappers, dripping faucets, and leaking showerheads all are easily correctable and can save on your utility bill expenses and water in your community.

Use the check list below to chase down leaks!

TAKE A TOILET TEST

Put a few drops of food coloring into the tank at the back of your toilet and let it sit for 10 minutes. If color shows up in the bowl, you have a leak. Make sure to flush afterward to avoid staining, and consider replacing your old toilet flapper if it is torn or worn. Check the EPA Fix a Leak web page for handy videos that show you how to do it.

The Environmental Protection Agency (EPA) provides great resources for you to utilize to detect leaks and save money on your water bill! Visit https//www.epa.gov/watersense for more information!

CHECKLIST

Here are some of the places leaks may be hiding in your home. Some leaks require a simple fix - a worn toilet flapper, loose pipe connection, or showerhead with stray spray. But you may want to consult a licensed plumber to stop your running toilet, broken sprinklers, water heater drips, or malfunctioning water supply lines. Take a quick inventory of clues to water waste:

IN THE BATHROOM

- ☑ Toilets: Listen for running water and conduct the food coloring test described above.
- ☑ Faucets: Listen for drips and turn on the tap to check for water going the wrong direction.
- ☑ Showerheads: Turn on and look for drips or stray sprays that can be stopped with tape.
- ☑ In the tub: Turn on the tub, then divert the water to the shower and see if there's still a lot of water coming from the tub spout; that could mean the tub spout diverter needs replacing.
- ☑ Under the sink: Check for pooling water under pipes and rust around joints and edges.

IN THE KITCHEN

- ☑ Faucet: Listen for drips and tighten aerators or replace fixtures if necessary.
- ☑ Sprayer: Check to make sure water is spraying smoothly and clean openings as needed.
- ☑ Under the sink: Check for pooling water under pipes and rust around joints and edges.
- ☑ Appliances: Check for pooling water underneath dishwashers and refrigerators with ice makers, which could indicate a supply line leak.

OUTSIDE

- ☑ At the spigot: Ensure tight connections with the hose and see if the hose washer needs replacing.
- ☑ In-ground irrigation system: Check for broken sprinklers or nozzles spraying in the wrong direction.

IN THE LAUNDRY OR UTILITY

- ☑ Clothes washer: Check for pooling water, which could indicate a supply line leak.
- ☑ Water heater: Check beneath the tank for pooling water, rust, or other signs of leakage.

https://www.epa.gov/sites/default/files/2017-02/documents/ws-ourwater-detect-and-chase-down-leaks-checklist.pdf

2024 ANNUAL MEETING OF THE MEMBERSHIP

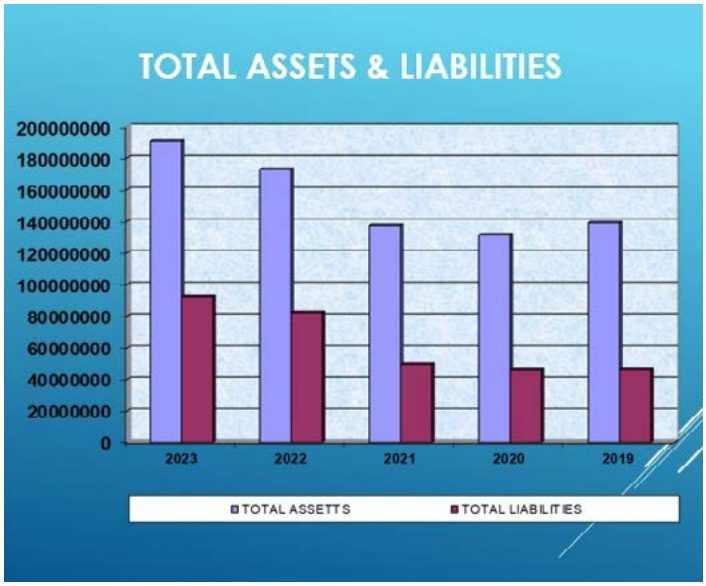
The SIRWA annual meeting of the membership was held on Wednesday, May 15, 2024, at the Supertel Inn and Conference Center in Creston, Iowa. The meeting was called to order at 1:30 p.m. by Board Chair John Walston. Management staff, Board members and special guests were introduced and minutes of the 2022 annual meeting were approved by the membership in attendance.

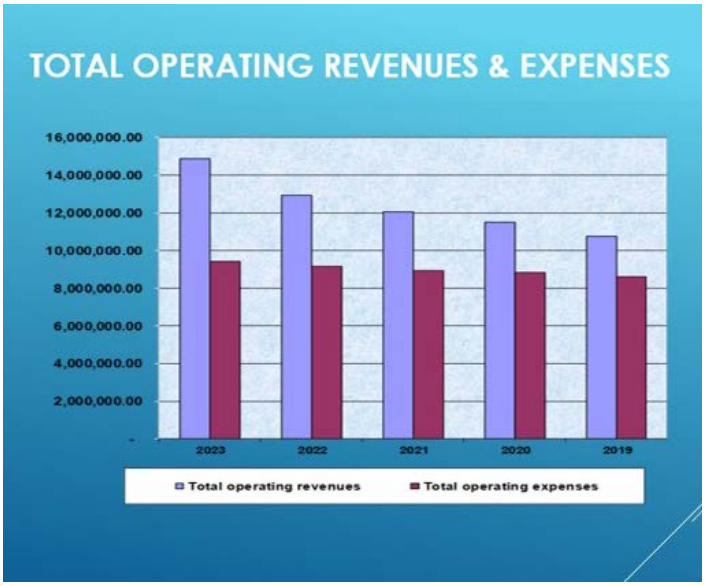
Forge Financial provided an overview of the audit of 2023 financials. The type of audit report issued on the financial statements was unmodified, which is the best audit report an organization can receive. There were no findings on the financial statement audit or questioned costs in the major federal awards programs audit. 2023 assets totaled $190,656,652 an increase of $17.6 million compared to 2022. Liabilities came in at $98,721,409 an increase of $16.49 million as compared to the previous year. Revenues were up $1.99 million from 2022 for a total of $14,880,098 million, while expenses increased $245,521 for a total of $9,415,902. SIRWA's ended 2023 with a net position of $91,788,931.

The SIRWA distribution area serves just over 11,700 customers. Of those customers, 9,530 are in the rural area, 2,217 are in franchised cities and 7 are cities who purchase bulk water. In addition to water service SIRWA also owns and operates 17 franchised sewer systems and provides wastewater services to 1,376 customers.

In 2023, 1,544,227,000 gallons of water were supplied. Water loss attributed to leaks and flushing totaled 21,484,780 gallons. Unaccountable water loss was 162,078,070 gallons for a system loss of 10.50%. The amount of water billed to customers was 1,306,664,200 gallons.

The newly constructed water treatment plant was put into production on January 18, 2024. The plant runs 24/7 and is staffed by 6 full-time and 2 part-time operators. Raw water is pumped nearly 4 miles from 3-Mile Lake. Once the raw water reaches the plant it goes through ultra pulsation clarifiers and then through carbon and sand filters to remove impurities. Online analyzers monitor the water quality every 2 minutes, with operators running water samples in the lab every two hours to verify. A disinfectant is injected in the water as it leaves the plant before making its way to the contact chamber. The water is required to spend a certain amount of time in the contact chamber to allow the disinfectant to do its job before the water is considered potable and can be pushed out into the distribution system. The Iowa DNR closely monitors all water produced to ensure it is meeting a strict set of standards to ensure public health.





Roughly 4.3 million gallons of potable water is produced by the SIRWA plant on a daily basis. At the time of the annual meeting an estimated 300 million gallons of potable water had been produced and sent out into our distribution. Nearly 85% of our customers are supplied from the SIRWA treatment plant. The remaining customers are supplied by water purchased from Corning, Greenfield, Leon and Osceola.

A report on the 3-Mile Lake restoration project was given, stating that the shoreline armoring is 75% complete. The project also includes watershed management, in-lake restoration, wind/wake protection at the dock area, shoreline fishing access and fish habitat. The total project is 25% complete with a target finish date of early 2025.

Work continues on getting the Clarke County Reservoir project to the finish line. All of the land needed has been purchased and project engineering is complete. The Commission is currently working on securing both Federal and State funding and getting one step closer to construction. In light of the raw water shortage in Clarke County, it has never been more evident how important the reservoir project is to the citizens of Clarke and surrounding counties.

There were two, Board seats up for re-election at this year's meeting. The seat representing Adair, Audubon, Cass, Guthrie and Madison counties and the seat representing Taylor and Page counties. The incumbents for both were re-elected for a 3-year term; Marlin Marckmann and John Walston respectively.


Marlin Marckmann


John Walston

The meeting concluded with a motion to adjourn and a thank you to the SIRWA Board, staff, partner communities and government agencies for another outstanding year.


3-Mile Lake


Carbon Sand Filters


Ultra Pulsation Clarifiers

EPA LEAD AND COPPER

RULE REVISION

The 1986 amendments to the Safe Drinking Water Act required all newly installed pipes and plumbing components in residential and nonresidential facilities to be "lead-free". The Lead and Copper Rule was introduced in 1991 and set limits for the allowable presence of lead and copper in drinking water.

The most recent Lead and Copper Rule Revision (LCRR) was published by the EPA in 2021. This revision requires all utilities across the country to begin developing an inventory documenting the materials used for every customer's service line in compliance with LCRR by October 16, 2024. Utilities must collect this information on both the utility and private portions of the line. The goal is to reduce the public's exposure risk to lead through drinking water consumption.

Why is this so important?

The lead and copper service line inventories will be provided to the states by the water system utilities to be utilized for oversight and reporting of information to the EPA. These inventories will also be used to draft regulations and funding for reduction and elimination of lead materials.

Lead service line means a portion of pipe that is made of lead, which connects the water main to the building inlet.

WE NEED YOUR HELP!

SIRWA is responsible for completing the LCRR inventory of service lines for every one of our 11,700 customers within our distribution system and we are asking for your help. Please take the time to fill out the survey on the following page and return it to our office by one of the following methods:

SIRWA

Mail to:

SIRWA
Attn: LCRR
P.O. Box 407
Creston, IA 50801

Email to:

bstandly@sirwa.org

If you would prefer to fill out the survey online, a link can be found on our website, **www.sirwa.org.**

Thank you!

2023 *CONSUMER CONFIDENCE REPORT*

The United States Environmental Protection Agency (US EPA), requires public water supply systems to provide a yearly Consumer Confidence Report (CCR) to their customers. These reports provide consumers information about their drinking water and are a guide to the quality and safety of the water provided by Southern Iowa Rural Water Association (SIRWA). They also are meant to improve public health protection by providing educational material to allow consumers to make educated decisions regarding any potential health risks pertaining to the quality and treatment of their drinking water supply.

Your water is thoroughly treated and has been tested for harmful and potentially harmful substances and has met or exceeded drinking water quality standards set by the US EPA and the State of Iowa Department of Natural Resources (IA DNR). The US EPA and IA DNR set drinking water standards to define the limits of contaminants considered safe for drinking water. These levels are based on studies of the health effects associated with each contaminant and include a sufficient safety margin to ensure that water meeting these standards is safe for nearly everyone to drink.

In addition to water distributed from the SIRWA water treatment plant, we purchase and redistribute water from four additional sources. Your June bill provides a web page link specifically for the supply source of your water which can be viewed and printed from our website at **www.sirwa.org.** CCR reports are also available at our office or customers may request a copy by mail if they are interested.

SIRWA Customer Water Service Line Material Survey

Link to online survey can be found at www.sirwa.org

Please complete the form below. Fields with an asterisk (*) are required.

First and Last Name or Business Name on your SIRWA Account *

Phone Number *

Email *(Recommended)*

Property Address of Water Service *

Account Number as Shown on Your Invoice *
For example: 099-049099-00

Type of Water Service *

- ☐ Single Family
- ☐ Multi-Family
- ☐ Commercial / Business
- ☐ Livestock Facility / Confined Livestock
- ☐ Pasture Meter (grazing livestock)
- ☐ Other

Please visually inspect your water service line after it enters the residence or structure to answer the next question.

Water Service Line Material *

- ☐ Plastic
- ☐ Copper
- ☐ Galvanized
- ☐ Lead
- ☐ Unknown
- ☐ Other

Year Water Service Line was Installed *
Enter the year, for example 1999, or UK for unknown

Year Residence or Structure was Constructed *
Enter the year, for example 1999, or UK if unknown

Interior Plumbing Material

- ☐ Plastic
- ☐ Copper
- ☐ Galvanized
- ☐ Lead
- ☐ Unknown
- ☐ Other

Year Interior Plumbing was Installed *
Enter the year, for example 1999, or UK for unknown

Interior Water Treatment Devices?
Are there any water treatment devices inside of the residence or structure?

	Yes	No
Water Softener	☐	☐
Whole House Filter	☐	☐
Carbon Canister on Faucet	☐	☐
RO Reverse Osmoses	☐	☐

Mail Survey to :
SIRWA
Attn: LCRR
P.O. Box 407
Creston, IA 50801

Email survey to:
bstandly@sirwa.org

CITY OF MINDEN

BENT NOT BROKEN

By Zeb McFarland, Iowa Rural Water Circuit Rider East

Minden is a small southwest Iowa town located in Pottawattamie County. Minden has a population of six hundred residents and is home to many thriving businesses, which is a rarity in most small towns. On April 26th, the city of Minden was hit by an EF3 tornado. The tornado caused damage to 120 homes and businesses of which 40 to 50 homes were completely destroyed and sadly one life claimed. Minden's Volunteer Fire Department was tracking the storm that produced the tornado and was able to give warning before the destruction hit. The fire department helped to rescue everyone they could and then played a vital role in recovery, direction, and organization for the next several weeks.

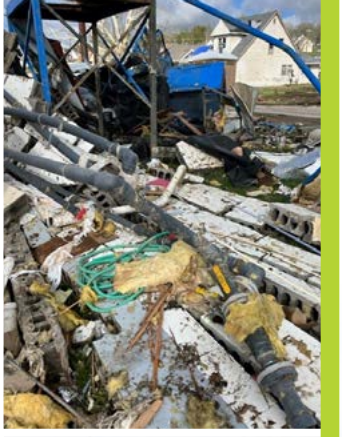
On April 27th Phil Bintz Minden's water supply superintendent contacted me. Phil relayed that their water treatment plant was destroyed along with their sewer lift station. One of the things Iowa Rural Water Association (IRWA) offers to cities is emergency response. Phil asked if there was a temporary treatment plant of sorts available to them. I asked Phil some water quality questions. It was determined that Minden really needed a plant for iron and manganese removal. I started calling contacts and located a plant within the hour. Fortunately for Minden, the city has a preexisting connection with Regional Water out of Avoca, Iowa. Regional Water generously agreed to supply Minden with water in their time of need. However, due to severe drought conditions in their service area Regional Water could only offer a limited amount for a limited time.

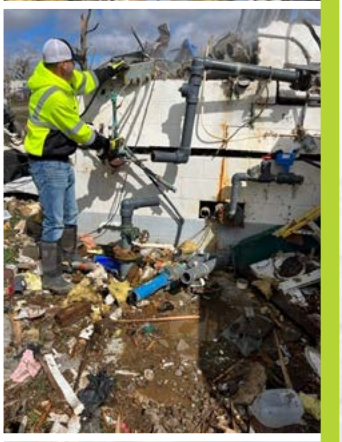
On April 29th I arrived in Minden, Iowa and went to the site of the water treatment plant. It was unreal the amount of damage that I observed in town. It was difficult to even drive to the water treatment plant. The plant that was once a solid concrete block building was now just a pile of rubble. Along with many volunteers, such as the neighboring Avoca Fire Department and Neola city employees, Minden city employees Phil and Jake and I cleaned up the destruction and salvaged what we could. The cleanup needed to be done to have a place for a new temporary filter plant.

On April 30th I went back to Minden and spoke with the city's engineer about the plans to set up a temporary water plant. I also explained to him the importance of developing a plan on building the new water treatment plant. On this day, I also spoke with USDA's Dee Fisher and received the great news that Minden qualified to get some emergency funding. Following those conversations, most of the same volunteers and myself started cleaning up the area of the city sewer lift station and much like the water treatment plant everything was destroyed. The building was gone, all the controls were destroyed, and the generator was mangled. Over the next several days I took many trips to Minden to join the others in doing the work needed to prepare for the temporary plant. John Lins, IRWA Training Specialist and IOWARN Representative, also came to Minden to assist. John helped direct contractors, relay information to the state and help with insurance claims.

The first week of May, the detention tank was cleaned, and the filter plant was delivered. Several companies were sought out and voluntarily helped with this work and the start up. Water Surplus rented the city a mobile filter plant.









Electric Pump helped get controls setup for the wells that had been destroyed as well as control programing for the plant and pump trailer. Baker Group did all the plumbing and mechanicals. Graham Construction built a roof for the detention tank. Zimmerman Sales and Services was instrumental in getting control wires run and electrical panels set up for power. Mid-American Energy worked very hard to restore power to the city. The IHSEMD Emergency Potable Water Pump Trailer that is a state owned asset housed and maintained by IRWA was brought in. The trailer was the idea and project of John Lins with IOWARN. After months of working on securing funding for the trailer, it just recently became a functional reality. Electric Pump designed the trailer and the plumbing and mechinicals was done by the Baker Group. The emergency potable water pump trailer funded by Iowa Homeland Security & Emergency Management is available at no cost to communities during emergencies within the state of Iowa. The trailer contains two 15 hp vfd pumps capable of assisting a community of 2000 population or less that has lost the ability to pump potable water to their system. Exactly two weeks after the water plant was destoyed the city was pumping their own water again.

A special note of appreciation is needed for the Mayor of Minden Kevin Zimmerman. Without his help along with his son Wes and his business employees the town wouldn't be as far as they are in recovery. All of the volunteers were amazing. There were several fire departments, several surrounding municipalities and many religious organizations. It just goes to show that the communities of Iowa are "Iowa Strong". Following this disaster and after viewing the flag pole outside of city hall, the town of Minden adopted a new slogan...

"Bent Not Broken".

Iowa Drought

RECOVERY SUMMARY

In 2018 and 2019 the state of Iowa saw its two wettest back-to-back years on record, with over 88 inches of precipitation falling during that period (21 inches more than normal). Then in 2020 the weather started getting drier, and over the next four years, from 2020 through 2023 the state was nearly 20 inches short of precipitation — in essence "giving back" all of the surplus of those record setting wet years. Now we find ourselves in another very recent wet pattern, and thinking about when the drought will be over, and when conditions will return to "normal." At the time of writing this piece, late May 2024, Iowa is on track for six of the last eight months to be wetter than normal, and for a spring that could be one of the top ten wettest on record for some parts of the state.

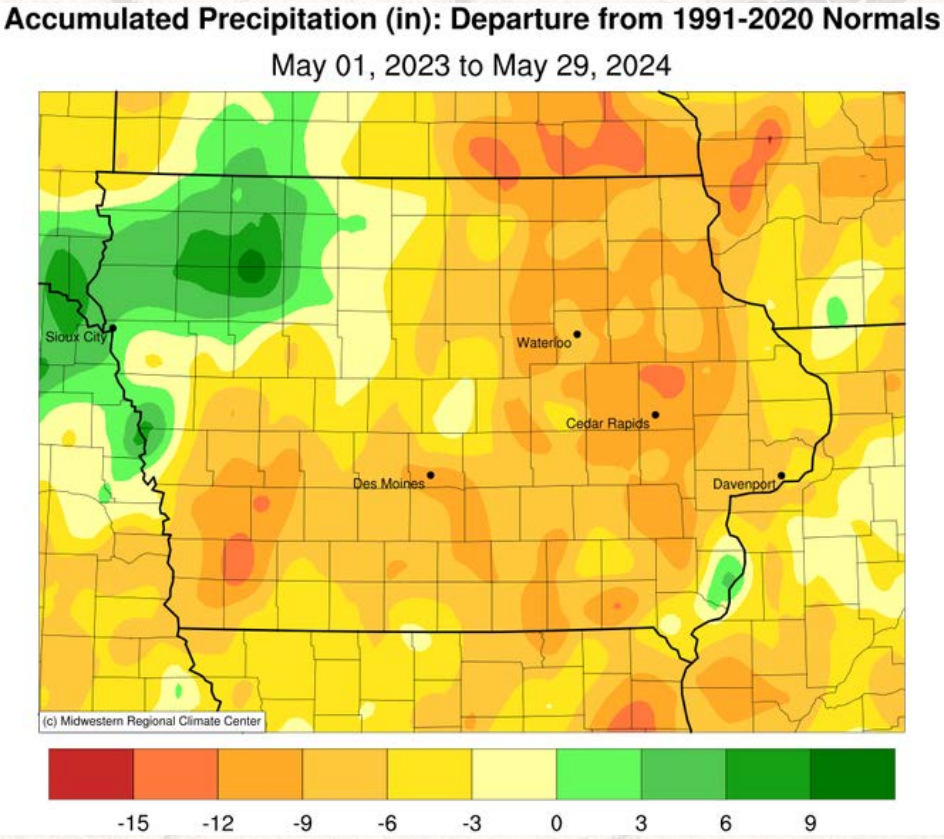
The question is this:
How could some parts of Iowa still be classified as "drought" in light of these recent wet months?

The answer lies in considering just how pervasive and significant the drought was for parts of Iowa. In Tama and Benton Counties, for example, May 2021 through April 2024 were the driest three years on record. Drier than the drought years of the 1950s. Drier than the Dust Bowl years of the 1930s. There are some reporting stations in those counties that missed out on the equivalent of nearly a year's worth of rain during those years. From an agricultural perspective, that missing rain was a significant problem. The figure below shows the departure from normal for precipitation in Iowa over the last 12 months. The green colors in northwest and southeast Iowa indicate more precipitation than normal going back to May 1, 2023. Other areas of the state show a deficit of more than a foot of precipitation over that same time period. This map includes the recent wetter than normal months of April and May 2024.

Over the past four years soils dried out and shallow groundwater was depleted.

As streamflow diminished, the groundwater available in alluvial shallow aquifers along those streams also diminished.

Recent rains have certainly helped to replenish and restore water in our ecosystem, but just as it took several years to dry out these subsurface water sources, it will take some time to restore them. Perhaps not years, but certainly many months. The state is well on its way to full drought recovery, but it will take some time. Parts of Iowa are already "drought free" — and those areas that are not yet could see full recovery by this fall, if the pattern of rain continues.



Six effective ways for you to **conserve water**

1 Timing is Everything

If you must water your lawn and/or gardens, remember to water in the early morning or in the evening. Water will evaporate during the heat of the day.

And, take a sprinkler break...grass isn't meant to be bright green in the middle of summer.

2 Check for Leaks

A small drip from a worn faucet washer can waste 20 gallons. Dry sinks and tubs thoroughly and allow to sit for an hour. If you notice wetness, you've found a leak.

3 Don't Run the Hose Continuously

Clean the car using a pail of soapy water. Use the hose only for rinsing.

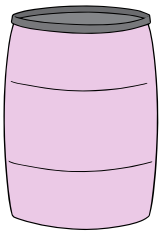
4 Use a Broom

Blasting leaves or stains off your walkways with water is one way to remove them, but brushing with a broom to first loosen the dirt and grime will decrease your water use and save time.

5 Keep Drinking Water in the Fridge

Running tap water to cool it off for drinking water is wasteful. Store drinking water in the fridge in a safe reusable drinking bottle. That way you have it cold when you need it after working outside on a hot day.

6 Recycle Water



Install a rain barrel to collect the rain water from your downspouts. Or collect the cold water you run before it's hot enough to shower and use it to water plants.

Southern Iowa Rural Water Assoc
1391 190th St
Creston, IA 50801

WATER MATTERS

Governor Kim Reynolds will sign a proclamation soon declaring August 18th through August 24th as Water and Wastewater Workers of Iowa week. This marks the 14th year that a governor has signed a proclamation honoring the water and wastewater workers of Iowa. Governor Terry Branstad signed the first proclamation in 2011 at a ceremony at the Ames wastewater plant. It is a week set aside for Iowans to honor those workers in the water and wastewater industry for their commitment to their community, to public health, and to the environment. Water and Wastewater Operators throughout the state of Iowa are unsung heroes in our communities. We take for granted the work they do each and every day to provide rural Iowans with safe, affordable drinking water.

State of Iowa

Executive Department

IN THE NAME AND BY THE AUTHORITY OF THE STATE OF IOWA

PROCLAMATION

WHEREAS, the State of Iowa's wealth of natural resources has been threatened by the degradation of surface and ground waters; and

WHEREAS, the water and wastewater workforce of Iowa have dedicated themselves to applying environmental passion and science to enhance drinking and recreational waters of Iowa; and

WHEREAS, their applied environmentalism continues to be a vital element in improving the quality of life and preserving and protecting public health in our state and promoting sustainability in our way of living.

We are asking all rural Iowans to look for ways to honor and thank Iowa water and wastewater workers. Here are a few suggestions:

- Have young Iowans make Thank You notes and Cards.
- Provide breakfast, lunch, or a snack by bringing it to city hall or the treatment plant.
- Have bright colored t-shirts (think construction and safety) made for your workers.
- Bring a thank you basket with an assortment of Refillable Water Bottles, Work Gloves, Carabiners, Hand Sanitizer, Sunglasses, and other popular swag.

During the Water and Wastewater Workers of Iowa week, IRWA will share social media posts. Feel free to use and/or forward these posts to your community.

Please join Iowa Rural Water Association and other industry leaders in celebrating Iowa Water and Wastewater Workers Week August 18th through 24th, 2024.