

Small Systems Bulletin

Minnesota Rural Water Association



April 2025 | **Spring News**



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Welcome to this edition of the Small Systems Bulletin. The purpose of this bulletin is to keep you informed on issues concerning your water system. We issue this bulletin quarterly. Topics covered in the bulletin include operation and maintenance, treatment, backflow/cross-connections, regulations, operator training, management, and many others. Dates and locations of future workshops are included.

If you have suggestions about topics that you would find helpful, give us a call at 800-367-6792 or send us an e-mail at kyle.kedrowski@mrwa.com or jennifer.koenig@mrwa.com.

Watch for this quarterly newsletter and we'll see you at a future small system training workshop!

Feature Article: The Importance of Routine Maintenance

Jennifer Koenig, Non-Transient/Non-Municipal Technical Advisor

How often do you perform routine maintenance on your water system? What would you do if you found out that you have coliform bacteria in your system because you didn't properly maintain your cartridge filters? How would you explain to your co-workers or customers that the reason you don't have any water is because you didn't call the well driller when you first started noticing signs that something was wrong with the pump? These problems are preventable! If you're not currently performing routine maintenance, there's no better time to start than now!

Well

Let's start with the well. It's a good idea to set up a maintenance agreement with your well driller to inspect the well (or wells) on a routine basis. This is especially important if you only have one well. The well(s) may be

working fine without any problems but it is still a good idea to have it looked at once a year (or every other year). Some of the items the well driller may check include:

Static level, pumping level, and drawdown, Voltage check, Amp draw, Well cap, Electrical conduit
Electrical connections, Pressure gauge and storage tank, Flow rate, Vertical turbine – vibration, oil level

After the well has been checked and put back together, the well should be disinfected. It is a good idea to disinfect your entire water system after any work has been performed on the system since contamination of the water supply can occur during routine maintenance. You should also collect a sample and test for coliform bacteria.

Pressure/Storage Tanks

How often do you check the pressure gauge on your pressure tank? Do you even have a pressure gauge? Does it work?! You should have a functioning pressure gauge and you should be checking it to make sure that you're maintaining adequate system pressure. You also want to check the water level in your tanks. If you have a bladder style tank, you don't want to have water in the top portion of the tank above the bladder. If you do, there is either a tear or hole in the bladder and you will need to replace the tank. Since water is not meant to be above the bladder, this may introduce coliform bacteria into the water system.

If you have a hydropneumatic (air-over-water) tank, you want to have approximately 2/3 water and 1/3 air in the tank. Check the sight glass on the tank for the water level (you may need to clean it once in a while). I would recommend having an extra sight glass on the shelf just in case you need it. You may need to add air periodically to the tank. (Remember to use an oil-less and tank-less air compressor so you don't contaminate the tank.) You also want to have the interior of these tanks cleaned periodically to remove any sediment that has settled on the bottom of the tank. As the sediment accumulates in the tank, you lose storage volume in the tank. Remember that entering the inside of these large hydropneumatic tanks is a safety hazard as it is considered a confined space. After the inside of the tank has been cleaned it is a good idea to disinfect the storage tank before putting it back into service. Like water towers, it is a good idea to have these tanks inspected on a regular basis.

It is a good idea to reduce the amount of moisture in the storage tank room. A dehumidifier is a great way to reduce the moisture in the storage tank room. This will help reduce the amount of external corrosion to hydropneumatic tanks, electrical controls and piping. Also, keep the storage room heated to prevent freezing. Never operate the tanks above the pressure rating on the tank (see manufacturer's plate). The air-relief valve should be checked frequently for proper operation.

Water Treatment

If you have a water softener, it's a good idea to set up a maintenance agreement with the company that installed the softener to inspect and maintain the softener on a regular basis. They will make sure it is functioning properly. It is a good idea to clean and disinfect the brine tank because the tank may have a bacterial slime growth growing inside. You definitely don't want bacteria in your drinking water! You also want to make sure that you are keeping salt in the brine tank and that you keep the cover on the tank to prevent contaminants from getting into the tank. Remember to always store the softener salt up off the floor to prevent contamination of the salt during storage. Please remember that the backwash line must discharge to a waste receptacle through a fixed air gap.

If you have any treatment units such as an anion exchange unit or a reverse osmosis unit, I would also recommend setting up a maintenance agreement with the company that installed the unit. You want to make sure that the unit is functioning properly and removing the contaminants adequately. If these or any other treatment units aren't properly maintained, you may contaminate your water supply.

In-line water filters often get ignored because it is very easy to forget them! (Have you heard the saying "out of sight...out of mind"?) If the filters aren't properly maintained, contaminants may accumulate and may cause contamination of the water supply. (These filters provide a great place for bacteria to grow.) Follow the manufacturer's recommendations for how often to change the filters. Also, make sure when you change the filter you wash your hands before you start. You don't want to contaminate the clean filter or the filter housing with your dirty hands. It is a good idea to clean out the filter housing with some bleach and flush it out with some clean water. Then take the new filter out of the wrapping and place it inside the filter housing. Never set the clean filter

on anything (shelf, counter-top, on top of the brine tank) because you could contaminate the filter. Hopefully this will eliminate any contaminants from getting on the filter and thus contaminating your water supply.

Distribution

It is recommended to exercise all valves and fire hydrants on a routine basis to ensure that they will work when needed. Also, you should flush the distribution system on a routine basis to flush out any sediment that may have accumulated in the system, especially at dead ends. I would also recommend cleaning the faucet aerators on a regular basis to remove any sediment.

Record Keeping

I would recommend keeping a maintenance log of all work performed on your water system. You can use any type of notebook to keep track of maintenance. Document the work you performed on the system, date, time, any vendors that you contacted, and any other notes you feel would be valuable in the future (i.e. water had a musty odor right before the sediment filter was replaced).

These are just a few of the routine maintenance items that I run into at small water systems. All systems are different but the importance of routine maintenance is the same for everyone. A little TLC on your water system will go a long way! So, make sure you take care of your water system before it's too late!!

Training & Technical Assistance Update:

The dates and locations for our upcoming in-person training sessions are listed below. We also have these dates posted on our *Training Calendar* page www.mrwa.com/training/trainingcalendar/.

At the top of that page, please click on the box "Go To Small Systems Training" for our Class E & D training dates and locations. For our in-person training sessions, we will mail notices to operations specialists in those areas approximately one month prior to the class.

In-Person Training:

Class E Training Workshops (8am – Noon)

May 6, 2025

**Willmar Fire Department
515 2nd St SW
Willmar, MN**

July 9, 2025

**Immanuel Lutheran Church & School
4656 State 200 NW
Walker, MN**

July 17, 2025

**Ridgeway Community School
35564 Winona County Road 12
Ridgeway, MN**

October 9, 2025

**Two Harbors Community Building
417 South Avenue**

Two Harbors, MN

Class D Training Workshops (8am – 5pm)

October 14, 2025

Pine Island City Hall

250 South Main St

Pine Island, MN

[Click Here to Register!](#)

Online Training:

We will continue to offer online remote training sessions using Zoom during the winter months. If you have not received these email invites for the Zoom online training sessions, please email mrwa@mrwa.com and provide your name, public water system name, and preferred email address to us so that we can add you to our email list. If you have received emails from us in the past but not these Zoom notices, please check your Junk/Spam folder. If you use a Gmail account, you may need to check the “Promotions” folder for the email invites.



Once the online training sessions are scheduled we will post these online training session links on our website www.mrwa.com on our *Training Calendar* page. At the top of that page, please click on the box “Go To Small Systems Training” for our online training links. You will be notified via email of the date and time of each online remote training session. An email address will be needed to register for these online remote training sessions.

Each operations specialist must register and sign-in separately on their own device to receive credit for attending the online remote training session.

Additional Training Opportunities

Lead and Copper Rule Revisions/Lead Copper Rule Improvements Training

(5 direct water CEUs available)

More information on these training sessions can be found on our website www.mrwa.com, on our Training Calendar page. At the top of that page, please click on the box “Go To WATER Training” for training dates and locations.

May 22, 2025

Beltrami Electric Cooperative

4111 Technology Drive NW

Bemidji, MN

June 18, 2025
Staples City Hall
122 6th St NE
Staples, MN

July 24, 2025
Hinckley Community Center
102 Dunn Ave N
Hinckley, MN

August 27, 2025
Detroit Lakes City Hall
Community Room
1025 Roosevelt Avenue
Detroit Lakes, MN

September 4, 2025
Lake City – City Hall
Ballroom
205 West Center Street
Lake City, MN

October 8, 2025
Fayal Township Town Hall
4375 Shady Lane
Eveleth, MN

November 19, 2025
Redwood Area Community Center
Conference Center Room #3A
901 Cook Street
Redwood Falls, MN

December 11, 2025
Tonka Bay City Hall
4901 Manitou Road
Tonka Bay, MN

Asset Management Training (9am – 2pm) 4 CEUs available

More information on these training sessions can be found on our website www.mrwa.com on our *Training Calendar* page. At the top of that page, please click on the box “Go To WATER Training” for more information.

June 24, 2025
Thief River Falls City Hall
405 3rd Street East
Thief River Falls, MN

December 18, 2025

North Mankato Police Annex
1001 Belgrade Avenue
North Mankato, MN

[Register Here](#)

Technical Assistance

We also wanted to let you know that if you have any questions about training or are in need of onsite technical assistance, please feel free to contact us to set up an appointment.

Thank you so much for all that you do to provide safe drinking water to your consumers!

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