

## Help Protect Our Most Precious Resource - Water

### The Value of Water

Drinking water is a precious resource, yet we often take it for granted.

Throughout history, civilizations have risen and fallen based on access to a plentiful, safe water supply. That's still the case today. Water is key to healthy people and healthy communities.

Water is also vital to our economy. We need water for manufacturing, agriculture, energy production, and more. One-fifth of the U.S. economy would come to a stop without a reliable and clean source of water.

Systems are in place to provide you with safe drinking water. The state of Minnesota and local water systems work to protect drinking water sources. For example, we might work to seal an unused well to prevent contamination of the groundwater. We treat water to remove harmful contaminants. And we do extensive testing to ensure the safety of drinking water.

If we detect a problem, we take corrective action and notify the public. Water from a public water system like yours is tested more thoroughly and regulated more closely than water from any other source, including bottled water.

### Conservation

Conservation is essential, even in the land of 10,000 lakes. For example, in parts of the metropolitan area, groundwater is being used faster than it can be replaced. Some agricultural regions in Minnesota are vulnerable to drought, which can affect crop yields and municipal water supplies.

We must use our water wisely. Below are some tips to help you and your family conserve – and save money in the process.

- Fix running toilets—they can waste hundreds of gallons of water.
- Turn off the tap while shaving or brushing your teeth.
- Shower instead of bathe. Bathing uses more water than showering, on average.
- Only run full loads of laundry, and set the washing machine to the correct water level.
- Only run the dishwasher when it's full.
- Use water-efficient appliances (look for the WaterSense label).
- Use water-friendly landscaping, such as native plants.
- When you do water your yard, water slowly, deeply, and less frequently. Water early in the morning and close to the ground.
- Learn more
  - [Minnesota Pollution Control Agency's Conserving Water webpage \(https://www.pca.state.mn.us/living-green/conserving-water\)](https://www.pca.state.mn.us/living-green/conserving-water)
  - [U.S. Environmental Protection Agency's WaterSense webpage \(https://www.epa.gov/watersense\)](https://www.epa.gov/watersense)

## You Can Prevent Pollution

Many of our daily activities contribute to the pollution of Minnesota's surface water and groundwater. You can help protect these drinking water sources by taking the following actions:

- Lawn and property:
  - Limit use of herbicides, pesticides, and fertilizers on your property.
  - Keep soil in place with plants, grass, or rocks.
  - Cover temporary piles of dirt with a tarp or burlap sack.
  - Keep leaves and grass off of streets and sidewalks.
  - Maintain any septic systems, private wells, and storage tanks to prevent leaks. Seal any unused wells.
- Out-of-date medications: Never flush unwanted or out-of-date medications down the toilet or sink. Always take them to a waste disposal or prescription medication drop-off site. More information is available at [Managing unwanted medications \(www.pca.state.mn.us/living-green/managing-unwanted-medications\)](http://www.pca.state.mn.us/living-green/managing-unwanted-medications)
- Hazardous materials: Safety store hazardous materials such as paint, batteries, herbicides, pesticides, and pool chemicals. Dispose of them at a proper waste disposal facility or drop-off event. Do not dump down storm drains, sink or onto your land. Learn more at: [Keep hazardous waste out of the garbage \(http://www.pca.state.mn.us/featured/keep-hazardous-waste-out-garbage\)](http://www.pca.state.mn.us/featured/keep-hazardous-waste-out-of-the-garbage).
- Pet waste: Pick up after your pet and put waste in the trash.
- Trash: Seal trash bags and keep litter out of the street.
- Winter ice removal: Chemicals used to break up the ice are called deicers or anti-icers. They can be harmful to the environment, corrosive to driveways and sidewalks and harmful to plants, pets and humans. Always shovel first, and then only apply deicers/anti-icers lightly if needed. Learn more at [10 smart salting tips to protect Minnesota waters \(https://www.pca.state.mn.us/featured/10-smart-salting-tips-protect-minnesota-waters\)](https://www.pca.state.mn.us/featured/10-smart-salting-tips-protect-minnesota-waters).
- Keep an eye out for car and motor fluids: Seal or repair any fluid leaks that could run off onto streets and into storm drains. Take used motor oil or other fluids to a neighborhood drop-off site.
- Be a water advocate: Spread the word; get involved. There are many groups and individuals working to protect water across Minnesota.

## Reduce Backflow at Cross Connections

Bacteria and chemicals can enter the drinking water supply from polluted water sources in a process called backflow. Backflow occurs at connection points between drinking water and non-drinking water supplies (cross connections) due to water pressure differences.

For example, if a person sprays an herbicide with a garden hose, the herbicide could enter the home's plumbing and then enter the drinking water supply. This could happen if the water pressure in the hose is greater than the water pressure in the home's pipes.

Property owners can help prevent backflow. Pay attention to cross connections, such as garden hoses.

The Minnesota Department of Health and American Water Works Association recommend the following:

- Do not submerge hoses in buckets, pools, tubs, or sinks.
- Keep the end of hoses clear of possible contaminants.
- Do not use spray attachments without a backflow prevention device. Attach these devices to threaded faucets. Such devices are inexpensive and available at hardware stores.
- Use a licensed plumber to install backflow prevention devices.
- Maintain air gaps between hose outlets and liquids. An air gap is a vertical space between the water outlet and the flood level of a fixture (e.g. the space between a wall-mounted faucet and the sink rim). It must be at least twice the diameter of the water supply outlet, and at least one inch.
- Commercial property owners should develop a plan for flushing or cleaning water systems to minimize the risk of drawing contaminants into uncontaminated areas.

## Home Water Treatment

Most Minnesotans, whether they drink from a public water supply or a private well, have drinking water that does not need treatment for health protection. Water treatment units are best for improving the physical qualities of water—the taste, color, or odor.

No single treatment process can remove all substances in water. If you decide to install a home water treatment unit, choose a unit certified and labeled to reduce or remove the substance of concern. If there is more than one substance you want to remove from your water, you may need to combine several treatment processes into one system.

Even well-designed treatments systems can fail. You should continue to test your drinking water after you install a treatment unit. All home water treatment units need regular maintenance to work correctly. Regular maintenance may include changing filters, disinfecting the unit, or cleaning scale buildup. Always install, clean, and maintain a treatment unit according to the manufacturer's recommendations.

Learn more at [Home Water Treatment](#)

(<http://www.health.state.mn.us/divs/eh/water/factsheet/com/pou.html>).

## The Pros and Cons of Home Water Softening

Water softeners are a water treatment device. They remove water hardness (dissolved calcium and magnesium). The decision to soften your water is a personal choice that can affect your home and the environment. It is important to understand your home's water quality. This will help you decide if a home water softener is necessary and choose the best treatment device(s). Water softeners must be installed and maintained properly to be safe and effective.

The advantages of home water softening include:

- Prevents build-up of minerals (scale) on the inside of pipes, fixtures, and hot water heaters.
- Lengthens the life of some appliances.
- Reduces or prevents mineral spots on glassware.

- Prevents or reduces soap films and detergent curds in sinks, bathtubs, and washing machines.

The disadvantages of home water softening include:

- Can corrode your pipes. The corroded metal from the pipes can end up in your water.
- Potential health implications from additional sodium from water softening.
- Regular testing of the water and maintenance of the softener is necessary to make sure the softener is working properly.
- Negative impacts to the environment from salt use.
- Water waste: 5% of the water that goes through a softener is not usable.

### **Beware of Water Treatment Scams**

False claims, deceptive sales pitches, or scare tactics have been used by some water treatment companies. Every person has a right to decide what is best for themselves and their family, and you may choose to install additional water treatment to further lower the levels of contaminants of emerging concern, chlorine, and other chemicals in your water. However, you should be cautious about purchasing a water treatment system. If you are considering the purchase of a home water treatment system, please read the Minnesota Department of Health's recommendations online at [Warning: Beware of Water Treatment Scams \(http://www.health.state.mn.us/divs/eh/water/factsheet/com/beware.html\)](http://www.health.state.mn.us/divs/eh/water/factsheet/com/beware.html).

### **Explaining Special Situations for the Highest Result and Average**

Some contaminants are monitored regularly throughout the year, and rolling (or moving) annual averages are used to manage compliance. Because of this averaging, there are times where the Range of Detected Test Results for the calendar year is lower than the Highest Average or Highest Single Test Result, because it occurred in the previous calendar year.