



2023 Drinking Water Report

Making Safe Drinking Water

Your drinking water comes from a groundwater source: six wells ranging from 345 to 640 feet deep, that draw water from the Tunnel City-Wonewoc and Jordan aquifers.

Prior Lake works hard to provide you with safe and reliable drinking water that meets federal and state water quality requirements. The purpose of this report is to provide you with information on your drinking water and how to protect our precious water resources.

Please contact the Public Works Department at 952-447-9896 or pwadmin@PriorLakeMN.gov if you have questions about Prior Lake's drinking water. You can also ask for information about how you can take part in decisions that may affect water quality.

The U.S. Environmental Protection Agency sets safe drinking water standards. These standards limit the amounts of specific contaminants allowed in drinking water. This ensures that tap water is safe to drink for most people. The U.S. Food and Drug Administration regulates the amount of certain contaminants in bottled water. Bottled water must provide the same public health protection as public tap water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Prior Lake Monitoring Results

This report contains our monitoring results from January 1 to December 31, 2023.

We work with the Minnesota Department of Health (MDH) to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health.

Learn more by visiting the MDH webpage, **Basics of Monitoring and Testing of Drinking Water in Minnesota:**

<https://www.health.state.mn.us/communities/environment/water/factsheet/sampling.html>

How to Read the Water Quality Data Tables

The tables below show the contaminants we found last year or the most recent time we sampled for that contaminant. They also show the levels of those contaminants and the Environmental Protection Agency's limits. Substances that we tested for but did not find are not included in the tables.

We sample for some contaminants less than once a year because their levels in water are not expected to change from year to year. If we found any of these contaminants the last time we sampled for them, we included them in the tables below with the detection date.

We may have done additional monitoring for contaminants that are not included in the Safe Drinking Water Act. To request a copy of these results, call the MDH at 651-201-4700 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

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.

DEFINITIONS

- **AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **EPA:** Environmental Protection Agency
- **MCL (Maximum contaminant level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **MCLG (Maximum contaminant level goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **MRDL (Maximum residual disinfectant level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum residual disinfectant level goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **N/A (Not applicable):** Does not apply.
- **ppt (parts per trillion):** One part per trillion is like one drop in one trillion gallons of water, or about one drop in an Olympic sized swimming pool. Ppt is the same as nanograms per liter (ng/l).
- **ppb (parts per billion):** One part per billion in water is like one drop in one billion drops of water, or about one drop in a swimming pool. ppb is the same as micrograms per liter (µg/l).
- **ppm (parts per million):** One part per million is like one drop in one million drops of water, or about one cup in a swimming pool. ppm is the same as milligrams per liter (mg/l).
- **PWSID:** Public Water System Identification.

Monitoring Results – Regulated Substances

LEAD AND COPPER – Tested at customer taps						
Contaminant (Date, if sampled in previous year)	EPA's Ideal Goal (MCLG)	EPA's Action Level	90% of Results Were Less Than	Number of Homes with High Levels	Violation	Typical Sources
Lead (08/11/22)	0 ppb	90% of homes less than 15 ppb	< 2 ppb	0 out of 30	NO	Corrosion of household plumbing
Copper (08/11/22)	0 ppm	90% of homes less than 1.3 ppm	1.01 ppm	0 out of 30	NO	Corrosion of household plumbing

CONTAMINANTS RELATED TO DISINFECTION – Tested in drinking water						
Substance (Date, if sampled in previous year)	EPA's Ideal Goal (MCLG or MRDLG)	EPA's Limit (MCL or MRDL)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Total Trihalomethanes (TTHMs)	N/A	80 ppb	10.8 ppb	6.30 – 10.80 ppb	NO	Byproduct of drinking water disinfection
Total Haloacetic Acids (HAA)	N/A	60 ppb	1.6 ppb	0.00 – 1.60 ppb	NO	Byproduct of drinking water disinfection
Total Chlorine	4.0 ppm	4.0 ppm	0.77 ppm	0.47 – 1.02 ppm	NO	Water additive used to control microbes

Total HAA refers to HAA5

OTHER SUBSTANCES – Tested in drinking water						
Substance (Date, if sampled in previous year)	EPA's Ideal Goal (MCLG)	EPA's Limit (MCL)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Fluoride	4.0 ppm	4.0 ppm	0.58 ppm	0.53 - 0.63 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth.

Potential health effects and corrective actions (if applicable)

Fluoride: If your drinking water fluoride levels are below the optimal concentration range of 0.5 to 0.9 ppm, please talk with your dentist about how you can protect your teeth and your family's teeth from tooth decay and cavities. For more information, visit: **MDH Drinking Water Fluoridation**
<https://www.health.state.mn.us/communities/environment/water/com/fluoride.html>

Fluoride is nature's cavity fighter, with small amounts present naturally in many drinking water sources. There is an overwhelming weight of credible, peer-reviewed, scientific evidence that fluoridation reduces tooth decay and cavities in children and adults, even when there is availability of fluoride from other sources, such as fluoride toothpaste and mouth rinses. Since studies show that optimal fluoride levels in drinking water benefit public health, municipal community water systems adjust the level of fluoride in the water to an optimal concentration between 0.5 to 0.9 parts per million (ppm) to protect your teeth. Fluoride levels below 2.0 ppm are not expected to increase the risk of a cosmetic condition known as enamel fluorosis.

Some people are more vulnerable to contaminants in drinking water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. The developing fetus and therefore pregnant women may also be more vulnerable to contaminants in drinking water. These people or their caregivers should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Learn More About Your Drinking Water

Drinking Water Sources

Minnesota's primary drinking water sources are groundwater and surface water. Groundwater, which is the water found in aquifers beneath the surface of the land, supplies 75% of Minnesota's drinking water. Surface water, which is the water in lakes, rivers, and streams above the surface of the land, supplies 25% of Minnesota's drinking water.

Contaminants can get in drinking water sources from the natural environment and from people's daily activities. There are five main types of contaminants in drinking water sources.

- **Microbial contaminants**, such as viruses, bacteria, and parasites. Sources include sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- **Inorganic contaminants** include salts and metals from natural sources (i.e., rock and soil), oil and gas production, mining and farming operations, urban stormwater runoff, and wastewater discharges.
- **Pesticides and herbicides** are chemicals used to reduce or kill unwanted plants and pests. Sources include agriculture, urban stormwater runoff, and commercial and residential properties.
- **Organic chemical contaminants** include synthetic and volatile organic compounds. Sources include industrial processes and petroleum production, gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants** such as radium, thorium, and uranium isotopes come from natural sources (i.e., radon gas from soils and rock), mining operations, and oil and gas production.



The MDH provides information about your drinking water source(s) in a source water assessment, including:

- How Prior Lake is protecting your drinking water source(s)
- Nearby threats to your drinking water sources
- How easily water and pollution can move from the surface of the land into drinking water sources, based on natural geology and the way wells are constructed

Find your source water assessment at the MDH webpage **Source Water Assessments:**

<https://www.health.state.mn.us/communities/environment/water/swp/swa.html> or call 651-201-4700 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

Lead in Drinking Water

You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. Coming in contact with lead can cause serious health problems for everyone. There is no safe level of lead. Babies, children under six years, and pregnant women are at the highest risk.

Lead is rarely in a drinking water source, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Prior Lake is responsible for providing high quality drinking water, but it cannot control the plumbing materials used in private buildings.

Read below to learn how you can protect yourself from lead in drinking water.

- 1. Let the water run** for 30-60 seconds before using it for drinking or cooking if the water has not been turned on in over six hours. If you have a lead service line, you may need to let the water run longer. A service line is the underground pipe that brings water from the main water pipe under the street to your home.
 - You can find out if you have a lead service line by contacting your public water system, or you can check by following the steps at: <https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home>
 - The only way to know if lead has been reduced by letting it run is to check with a test. If letting the water run does not reduce lead, consider other options to reduce your exposure.
- 2. Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.
- 3. Test your water.** In most cases, letting the water run and using cold water for drinking and cooking should keep lead levels low in your drinking water. If you are still concerned about lead, arrange with a laboratory to test your tap water. Testing your water is important if young children or pregnant women drink your tap water.
 - Contact a Minnesota Department of Health accredited laboratory to get a sample container and instructions on how to submit a sample. **Environmental Laboratory Accreditation Program:** <https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam>
 - The Minnesota Department of Health can help you understand your test results.
- 4. Treat your water** if a test shows your water has high levels of lead after you let the water run.
 - Read about Point-of-Use Water Treatment Units for Lead Reduction: <https://www.health.state.mn.us/communities/environment/water/factsheet/poulead.html>
- 5. Learn more:**
 - Visit **Lead in Drinking Water:** <https://www.health.state.mn.us/communities/environment/water/contaminants/lead.html>
 - Visit **Basic Information about Lead in Drinking Water:** <http://www.epa.gov/safewater/lead>
 - Call the EPA Safe Drinking Water Hotline at 1 800 426 4791. To learn about how to reduce your contact with lead from sources other than your drinking water, visit **Common Sources of Lead:** <https://www.health.state.mn.us/communities/environment/lead/fs/common.html>

How to 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.

Water Conservation

Conservation is essential, even in the land of 10,000 lakes. 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. Here are some tips to help you and your family conserve – and save money in the process:

- Fix leaking toilets—they can waste hundreds of gallons of water.
- Turn off the tap while shaving or brushing your teeth.
- Take a shower instead of a bath. Filling a bathtub typically uses more water than showering.
- 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 irrigate your yard, water deeply, less frequently, and early in the morning. Your lawn only needs 1" of water per week, including rain. Learn more about how to best operate your irrigation system without wasting water:

<https://turf.umn.edu/news/green-grass-less-blue-new-video>



- Learn more at the U.S. Environmental Protection Agency's WaterSense webpage: <https://www.epa.gov/watersense>

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 (ex: 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.

You can Help Prevent Water 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, and 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
- **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 how to **Safely dispose of household hazardous waste:** <https://www.pca.state.mn.us/news-and-stories/safely-dispose-of-household-hazardous-waste>
- **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 how to **remove snow better, cheaper and pollution-free:** <https://www.pca.state.mn.us/news-and-stories/snow-removal-do-it-better-cheaper-and-pollution-free>
- **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.

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 with the **Home Water Treatment Fact Sheet:**

<https://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html>

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 <https://www.health.state.mn.us/communities/environment/water/factsheet/beware.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. Learn more at <https://www.health.state.mn.us/communities/environment/water/factsheet/softening.html>

The benefits of soft water include:

- Increased efficiency for soaps and detergents
- Reduction in mineral staining on fixtures and in pipes
- A potential increase in the lifespan of water heaters

The drawbacks of soft water include:

- Operation and maintenance costs
- More sodium. People on low-sodium diets should consult a doctor if they plan to regularly consume softened water.
- The production of salt brine as a byproduct. This can have negative effects at wastewater treatment plants and on ecosystems. Reduce the amount of salt brine used or install a salt-free system.

Service Line Material Inventory

Our system will be working to complete an inventory of the service line materials before October 16, 2021. The service line consists of the pipes that connect the water main to your home. Older homes may have materials such as lead in their service lines and this inventory will help us prioritize replacement of lead service lines in the future. We hope that customers will actively cooperate as we work to complete our inventory and we will make the information available once complete. For questions, please contact us.