



2023 DRINKING WATER REPORT

For Non-English Speaking Customers:

This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.

Información importante. Si no la entiende, haga que alguien se la traduzca ahora.

Daim ntawv teev num no muaj cov ntaub ntawv tseem ceeb hais txog koj cov dej haus. Nrhiav ib tug neeg pab txhais cov ntaub ntawv no rau koj, lossis tham nrog ib tug neeg uas paub cov lus no.

Source Water

Your drinking water comes from both groundwater and surface water sources. Surface water is drawn from the Red River of the North and groundwater is drawn from seven wells, ranging from 114 to 269 feet deep, that draw water from the Quaternary Buried Unconfined and Quaternary Buried Artesian aquifers.

Moorhead Public Service (MPS) works diligently to provide you with safe and reliable drinking water that meets federal and state water quality requirements. The results of monitoring done on MPS' drinking water for the period from January 1 to December 31, 2023, are issued in this Consumer Confidence Report (CCR). 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 Marc Pritchard, Water Plant Manager, at mpritchard@mpsutility.com or 218.477.8072 with any questions you have about Moorhead's drinking water. You can also request information on how you can take part in decisions that may affect water quality.

The U.S. Environmental Protection Agency (EPA) 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 also 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 EPA's Safe Drinking Water Hotline at 1.800.426.4791.

MPS Monitoring Results

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

MPS works 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's webpage [Basics of Monitoring and testing of Drinking Water in Minnesota](https://www.health.state.mn.us/communities/environment/water/factsheet/sampling.html) (<https://www.health.state.mn.us/communities/environment/water/factsheet/sampling.html>).

How to Read the Water Quality Data Tables

The tables in this report show the contaminants MPS found in 2023, or the most recent time samples were collected for that contaminant. The tables also show the levels of those contaminants and the EPA's limits. Substances that MPS tested for but did not find are not included in the tables.

MPS collects samples less than once a year for certain contaminants because their levels in water are not expected to change from year to year. If MPS found any of these contaminants the last time samples were collected, the results are included in the tables on the following pages along with the detection date.

MPS and/or MDH 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 MDH at 651.201.4700 or 1.800.818.9318 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 average, 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.
- **NA (Not applicable):** Does not apply.
- **NTU (Nephelometric Turbidity Units):** A measure of the cloudiness of the water (turbidity).
- **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 of water in a swimming pool. ppm is the same as milligrams per liter (mg/l).
- **PWSID:** Public water system identification.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

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 (10/14/2022)	0 ppb	90% of homes less than 15 ppb	4.64 ppb	0 out of 30	NO	Corrosion of household plumbing.
Copper (10/14/2022)	0 ppm	90% of homes less than 1.3 ppm	0.06 ppm	0 out of 30	NO	Corrosion of household plumbing.

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.

INORGANIC & ORGANIC CONTAMINANTS – Tested in drinking water.

Contaminant (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
Nitrate	10 ppm	10.4 ppm	0.32 ppm	N/A	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Arsenic	0 ppb	10.4 ppb	1.10 ppb	N/A	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

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	2.0 ppb	0.80 - 3.60 ppb	NO	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA)*	N/A	60 ppb	7.4 ppb	2.70 – 8.90 ppb	NO	By-product of drinking water disinfection.
Total Chlorine	4.0 ppm	4.0 ppm	2.30 ppm	2.00 - 2.50 ppm	NO	Water additive used to control microbes.
Bromate**	0 ppb	10 ppb	8.1 ppb	0.000 – 12.0 ppb	NO	By-product of drinking water disinfection.

*Total HAA refers to HAA5

**Running Annual Average (RAA) calculation for Water Treatment Plant did not exceed 5.7 ppb. All quarterly averages for Bromate in 2023 were below the MCL.

OTHER SUBSTANCES – Tested in drinking water.

<i>Substance (Date, if sampled in previous year)</i>	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	0.7 ppm	0.59 - 0.71 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth.

Potential Health Effects and Corrective Actions (if Applicable)

Fluoride: 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.

TREATMENT INDICATOR – Tested during treatment.

<i>Substance</i>	Removal Required	Lowest Monthly Percent of Results in Compliance	Highest Test Result	Violation	Typical Sources
Turbidity	Treatment Technique	100%	0.206 NTU	NO	Soil runoff.

DISINFECTION BYPRODUCT INDICATOR – Tested in source water and in drinking water.

<i>Substance</i>	Removal Required	Range of Percent Removal Achieved	Average of Percent Removal Achieved	Violation	Typical Sources
Total Organic Carbon	Variable	47 - 63	56	NO	N/A

The percentage of Total Organic Carbon (TOC) removal was measured each month. The system met all TOC removal requirements, unless there is a "YES" in the Violation column.

Monitoring Results – Unregulated Substances

In addition to testing drinking water for contaminants regulated under the Safe Drinking Water Act, we sometimes also monitor for contaminants that are not regulated. Unregulated contaminants do not have legal limits for drinking water.

Detection alone of a regulated or unregulated contaminant should not cause concern. The meaning of a detection should be determined considering current health effects information. We are often still learning about the health effects, so this information can change over time.

The following table shows the unregulated contaminants we detected last year, as well as human-health based guidance values for comparison, where available. EPA may not have set human-health based guidance values for some contaminants. The comparison values are based only on potential health impacts and do not consider our ability to measure contaminants at very low concentrations or the cost and technology of prevention and/or treatment. They may be set at levels that are costly, challenging, or impossible for water systems to meet (for example, large-scale treatment technology may not exist for a given contaminant).

A person drinking water with a contaminant at or below the comparison value would be at little to no risk for harmful health effects. If the level of a contaminant is above the comparison value, people of a certain age or with special health conditions—like a fetus, infants, children, elderly, and people with impaired immunity—may need to take extra precautions. We are notifying you of the unregulated contaminants we have detected as a public education opportunity.

- More information is available on MDH’s A-Z List of Contaminants in Water (<https://www.health.state.mn.us/communities/environment/water/contaminants/index.html>).
- Fourth Unregulated Contaminant Monitoring Rule (UCMR 4) (<https://www.health.state.mn.us/communities/environment/water/com/ucmr4.html>).
- Fifth Unregulated Contaminant Monitoring Rule (<https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>).
- EPA UCMR 5 Data Finder: The Unregulated Contaminant Monitoring Rule 5 (UCMR5) Data finder allows people to easily search for, summarize, and download the available UCMR 5 analytical results.
- EPA has developed a UCMR5 Program Overview Factsheet (<https://www.epa.gov/system/files/documents/2022-02/ucmr5-factsheet.pdf>) describing UCMR 5 contaminants and standards.

UNREGULATED CONTAMINANTS – Tested in drinking water.

Contaminant	Comparison Value	Highest Average Result or Highest Single Test Result	Range of Detected Test Results
Sodium	20 ppm	95 ppm	N/A
Sulfate	500 ppm	231 ppm	N/A
lithium	10 ppb	41.6 ppb	N/A
Perfluorobutanoic acid (PFBA)	7000 ppt	5.9 ppt	N/A

Learn More about Your Drinking Water

Drinking Water Sources

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

Contaminants can infiltrate 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 (e.g. 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 (e.g. 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 MPS 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 [Source Water Assessments](https://www.health.state.mn.us/communities/environment/water/swp/swa) (<https://www.health.state.mn.us/communities/environment/water/swp/swa>) or call 651.201.4700 or 1.800.818.9318 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, and is not present in Moorhead's source water or in the treated water when it leaves MPS' Water Treatment Plant. Lead can get in your drinking water as it passes through lead service lines and your household plumbing system. MPS 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 watermain under the street to your home.

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, MPS might work to seal an unused well to prevent contamination of the groundwater. MPS treats water to remove harmful contaminants, and does extensive testing to ensure the safety of drinking water.

If MPS detects a problem, we take corrective action and notify the public. Water from a public water system like MPS 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, our area is vulnerable to both floods and drought.

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

- Follow MPS’ recommended voluntary watering restrictions during summer months.
- 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.
- 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 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 levels have 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 MDH accredited laboratory to get a sample container and instructions on how to submit a sample. The MDH can help you understand your test results.
<https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam>.
 4. **Treat your water** if a test shows your water has high levels of lead after you let the water run.
Read about water treatment units at:
[Point-of-Use Water Treatment Units for Lead Reduction](https://www.health.state.mn.us/communities/environment/water/factsheet/poulead.html)
(<https://www.health.state.mn.us/communities/environment/water/factsheet/poulead.html>)

Learn more:

- Visit [Lead in Drinking Water](https://www.health.state.mn.us/communities/environment/water/contaminants/lead.html)
(<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) (<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 [Lead Poisoning Prevention: Common Sources](https://www.health.state.mn.us/communities/environment/lead/sources.html)
(<https://www.health.state.mn.us/communities/environment/lead/sources.html>).

Moorhead Public Service
P.O. Box 779
Moorhead, MN 56561-0779
Tel. (218) 477-8000, Option 4
www.mpsutility.com