



Brainerd 2021 Drinking Water Report

Making Safe Drinking Water Your drinking water comes from a groundwater source: six wells ranging from 123 to 187 ‘ deep, that draw water from the Quaternary Water Table aquifer. Brainerd works hard to provide you with safe & reliable drinking water that meets federal & state water quality requirements. The purpose of this report is to provide you with information on your drinking water & how to protect our precious water resources. Contact Scott Magnuson, Superintendent, at 218-829-8726 or smagnuson@bpu.org if you have questions about Brainerd’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 (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 & 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 & potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

Brainerd Monitoring Results This report contains our monitoring results from January 1 to December 31, 2021. 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 Minnesota Department of Health’s webpage [Basics of Monitoring & 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).

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 & 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 Minnesota Department of Health at 651-201-4700.

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.
- 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
Copper (01/25/22)	0 ppm	90% of homes less than 1.3 ppm	2.19 ppm	30 out of 60	YES	Corrosion of household plumbing.
Lead (01/25/22)	0 ppb	90% of homes less than 15 ppb	2.1 ppb	0 out of 60	NO	Corrosion of household plumbing.
Lead (06/02/21)	0 ppb	90% of homes less than 15 ppb	4.8 ppb	0 out of 60	NO	Corrosion of household plumbing.
Copper (06/02/21)	0 ppm	90% of homes less than 1.3 ppm	2.65 ppm	40 out of 60	YES	Corrosion of household plumbing.

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	0.55 ppm	N/A	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Potential Health Effects & Corrective Actions (If Applicable)

Copper: We are in exceedance of the action level for copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor. In response to this issue, we performed a corrosion control study &/or have taken actions to make the water less likely to absorb materials such as copper from your 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	28.7 ppb	N/A	NO	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA)	N/A	60 ppb	26 ppb	N/A	NO	By-product of drinking water disinfection.

Total HAA refers to HAAS



Brainerd Public Utilities
Emergency 24 hour service
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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	0.91 ppm	0.83 - 0.98 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth.

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. The comparison values are based only on potential health impacts & do not consider our ability to measure contaminants at very low concentrations or the cost & technology of prevention &/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 or 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, & people with impaired immunity – may need to take extra precautions. Because these contaminants are unregulated, EPA & MDH require no particular action based on detection of an unregulated contaminant. We are notifying you of the unregulated contaminants we have detected as a public education opportunity. .

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	12.4 ppm	N/A
Sulfate	500 ppm	17 ppm	N/A

*Note that home water softening can increase the level of sodium in your water.

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, & infants can be particularly at risk from infections. The developing fetus & 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* & other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Drinking Water Sources

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

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

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

The Minnesota Department of Health provides information about your drinking water source(s) in a source water assessment, including: How Brainerd is protecting your drinking water source(s); Nearby threats to your drinking water sources; How easily water & pollution can move from the surface of the I& into drinking water sources, based on natural geology & 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

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, & 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 & your household plumbing system. Brainerd 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.

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.

- Use cold water** for drinking, making food, & making baby formula. Hot water releases more lead from pipes than cold water.
- Test your water.** In most cases, letting the water run & using cold water for drinking & 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 & instructions on how to submit a sample: [Environmental Laboratory Accreditation Program \(https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam\)](https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam) The Minnesota Department of Health can help you understand your test results.

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: [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)