

City of Bayport

2021 CONSUMER CONFIDENCE DRINKING WATER REPORT

Making Safe Drinking Water

Your drinking water comes from a groundwater source with two wells ranging from 296 to 315 feet deep, which draw water from the Tunnel City Group and Tunnel City-Wonewoc aquifers. Bayport works hard to provide safe and reliable drinking water that meets federal and state water quality requirements. The purpose of this report is to provide information on drinking water and how to protect our precious water resources. Contact Public Works Director Matt Kline at publicworks@ci.bayport.mn.us or 651-275-4410 with questions about Bayport's drinking water or for information on how to 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 (FDA) 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. Call the EPA Safe Drinking Water Hotline at 1-800-426-4791 for more information about contaminants and potential health effects.

Bayport Monitoring Results

This report contains monitoring results from January 1 to December 31, 2021. The city 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 from substances that may be harmful to health. Learn more on the MDH webpage *Basics of Monitoring and Testing of Drinking Water in Minnesota*.

How to Read the Water Quality Data Tables

The tables below show the contaminants found last year or the most recent time that contaminant was sampled. They also show the levels of those contaminants and the EPA limits. Substances that were tested for but did not detect are not included in the tables. Some contaminants are sampled less than once a year because their levels in water are not expected to change from year to year. If any of these contaminants were detected the last time sampled, they are included in the tables below with the detection date. Additional monitoring may have been conducted for contaminants not included in the Safe Drinking Water Act. Contact MDH at 651-201-4700 or 1-800-818-9318 for these results.

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 disinfectant use to control microbial contaminants.
- **N/A** (Not applicable)
- **pCi/l** (picocuries per liter): A measure of radioactivity.
- **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 ($\mu\text{g/l}$).
- **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	# Homes with High Levels	Violation	Typical Sources
Lead (08/21/20)	0 ppb	90% of homes < 15 ppb	<0.5 ppb	0 out of 10	NO	Corrosion of household plumbing.
Copper (08/21/20)	0 ppm	90% of homes < 1.3 ppm	0.32 ppm	0 out of 10	NO	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 Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Nitrate	10 ppm	10.4 ppm	0.72 ppm	0-0.72 ppm	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium (01/10/18)	2 ppm	2 ppm	0.03 ppm	N/A	NO	Discharge of drilling wastes and metal refineries; erosion of natural deposits.
Arsenic (01/10/18)	0 ppb	10.4 ppb	1.46 ppb	N/A	NO	Erosion of natural deposits; runoff from orchards and glass or electronics production wastes.
Trichloroethylene (TCE)	0 ppb	5 ppb	0.13 ppb	0-0.19 ppb	NO	Discharge from metal degreasing sites and other factories.
Combined Radium (2018)	0 pCi/l	5.4 pCi/l	1.6 pCi/l	N/A	NO	Erosion of natural deposits.

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 Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Total Trihalomethanes (TTHMs)	N/A	80 ppb	25.4 ppb	N/A	NO	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA)	N/A	60 ppb	3.3 ppb	N/A	NO	By-product of drinking water disinfection.
Total Chlorine	4.0 ppm	4.0 ppm	0.64 ppm	0.39-0.96 ppm	NO	Water additive used to control microbes.

Total HAA refers to HAA5

Potential Health Effects and Corrective Actions (if applicable)

Total Haloacetic Acids (HAA): Due to a storage temperature failure at the MDH public health laboratory, analysis of the HAA sample originally collected on September 27, 2021 was cancelled and a November 8, 2021 sample was recollected outside the allowed monitoring period.

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 Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Fluoride	4.0 ppm	4.0 ppm	0.86 ppm	0.81-0.87 ppm	NO	Erosion of natural deposits; water additive to promote strong teeth.

Potential Health Effects and Corrective Actions (if applicable)

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 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 a concentration between 0.5 to 1.5 ppm, to protect teeth. Fluoride levels below 2.0 ppm are not expected to increase the risk of a cosmetic condition known as enamel fluorosis.

Monitoring Results – Unregulated Substances

In addition to testing drinking water for contaminants regulated under the Safe Drinking Water Act, sometimes contaminants that are not regulated are monitored. 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. There is much still to learn about the health effects, so this information can change over time.

The following table shows the unregulated contaminants that were 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 and do not consider the 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 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 (fetus, infants, children, elderly, impaired immunity) may need to take extra precautions. Because these contaminants are unregulated, EPA and MDH require no particular action based on detection of an unregulated contaminant. Notice of the unregulated contaminants detected are provided for reference. More information is available on MDH's *A-Z List of Contaminants in Water* and *Fourth Unregulated Contaminant Monitoring Rule*.

CONTAMINANTS RELATED TO DISINFECTION – Tested in drinking water.

Contaminant	Comparison Value	Highest Average Result or Highest Single Test Result	Range of Detected Test Results
Sodium	20 ppm	6.8 ppm	N/A
Sulfate	500 ppm	17.7 ppm	N/A

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

Vulnerability to Contaminants in Drinking Water

Some people may be more vulnerable to contaminants in drinking water than the general population. Individuals considered immunocompromised with cancer undergoing chemotherapy, with organ transplants, HIV/AIDS, or other immune system disorders, and some elderly and infants can be particularly at risk from infections. The developing fetus and pregnant women may also be more vulnerable to contaminants in drinking water. These individuals and caregivers should seek advice about drinking water from a health care provider. The EPA and Center 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.

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 and supplies 75% of Minnesota's drinking water. Surface water is the water in lakes, rivers, and streams above the surface of the land and supplies 25% of Minnesota's drinking water. Contaminants can enter drinking water sources from the natural environment and daily activities. Drinking water sources contain 5 main types of contaminants:

- **Microbial contaminants:** viruses, bacteria, and parasites from sources including sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- **Inorganic contaminants:** salts and metals from natural sources (rock and soil), oil and gas production, mining and farming operations, urban stormwater runoff, and wastewater discharges.

- **Pesticides and herbicides:** chemicals used to reduce or kill unwanted plants and pests from sources including agriculture, urban stormwater runoff, and commercial and residential properties.
- **Organic chemical contaminants:** synthetic and volatile organic compounds from sources including industrial processes and petroleum production, gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants:** radium, thorium, and uranium isotopes from natural sources (radon gas from soils and rock), mining operations, and oil and gas production.

MDH provides information about drinking water source(s) in a source water assessment, including how Bayport is protecting drinking water source(s), nearby threats to drinking water sources, and 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. The assessment is available on the MDH webpage *Source Water Assessments* or by calling 651-201-4700.

Lead in Drinking Water

Coming in contact with lead can cause serious health problems. There is no safe level of lead. Babies, children under 6 years, and pregnant women are at the highest risk. Lead is rarely in a drinking water source, but it can enter drinking water as it passes through lead service lines and plumbing systems. Bayport is responsible for providing high quality drinking water, but it cannot control the plumbing materials used in private buildings. To protect from exposure to lead in drinking water, refer to the guidelines below.

1. Let water run for 30-60 seconds before drinking or cooking if the water has not been turned on in over 6 hours (lead service lines from the water main to the house may require longer). Contact the Public Works Department to verify the type of service line.
2. Use cold water for drinking, cooking, and baby formula. Hot water releases more lead from pipes than cold water.
3. Test tap water if concerned about lead exposure. Learn about accredited laboratories that can assist with testing on the MDH webpage *Environmental Laboratory Accreditation Program*.
4. Treat your water if a test shows high levels of lead after letting the water run. Learn more on the MDH webpage *Home Water Treatment Fact Sheet*.

Additional resources can be found on the MDH webpage *Lead in Drinking Water* and *Lead Poisoning Prevention: Common Sources*, the EPA webpage *Basic Information about Lead in Drinking Water*, and the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Conservation

Conservation of water is essential and it must be used wisely. In parts of the metropolitan area, groundwater is consumed faster than it can be replaced. Some agricultural regions in the state are vulnerable to drought, which can affect crop yields and municipal water supplies. To conserve water, refer to the guidelines below.

1. Repair leaking or running toilets.
2. Turn off the tap while shaving or brushing teeth.
3. Shower, rather than bathe.
4. Run full loads of laundry and set washing machine to correct water level.
5. Run full loads in dishwasher.
6. Install water-efficient appliances (look for WaterSense label).
7. Install water-friendly landscaping, such as native plants.
8. Water lawn slowly, deeply, and less frequently in early morning and close to the surface.

Additional resources can be found on the PCA webpage *Conserving Water* and EPA webpage *WaterSense*.