



Hastings 2022 Drinking Water Report

Making Safe Drinking Water

Your drinking water comes from a groundwater source: six wells ranging from 280 to 400 feet deep, that draw water from the Jordan aquifer.

Hastings 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.

Contact City of Hastings Public Works at 651-480-6185 or publicworksdept@hastingsmn.gov if you have questions about Hastings'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.

Hastings Monitoring Results

This report contains our monitoring results from January 1 to December 31, 2022.

We work with the Minnesota Department of Health 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 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 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 Minnesota Department of Health at 651-201-4700 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

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.
- **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 ($\mu\text{g}/\text{l}$).
- **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 (08/11/21) | 0 ppb | 90% of homes less than 15 ppb | 2.9 ppb | 0 out of 30 | NO | Corrosion of household plumbing. |
| Copper (08/11/21) | 0 ppm | 90% of homes less than 1.3 ppm | 0.14 ppm | 0 out of 30 | 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 Highest Single Test Result | Range of Detected Test Results | Violation | Typical Sources |
|---|-------------------------|-------------------|---|--------------------------------|-----------|--|
| Barium | 2 ppm | 2 ppm | 0.05 ppm | 0.0202 - 0.0496 ppm | NO | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposit. |
| Nitrate | 10 ppm | 10.4 ppm | 8.4 ppm | 5.30 - 8.40 ppm | NO | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

Potential Health Effects and Corrective Actions (If Applicable)

Nitrate: Nitrate in drinking water at levels above 10 parts per million is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue



baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

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 | 12.5 ppb | 12.50 - 30.20 ppb | NO | By-product of drinking water disinfection. |
| Total Haloacetic Acids (HAA) | N/A | 60 ppb | 6.2 ppb | 4.10 - 6.20 ppb | NO | By-product of drinking water disinfection. |
| Total Chlorine | 4.0 ppm | 4.0 ppm | 0.52 ppm | 0.37 - 0.56 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 | 0.75 ppm | 0.45 - 0.93 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 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 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, and people with 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. 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) (<https://www.health.state.mn.us/communities/environment/water/contaminants/index.html>) and Fourth [Unregulated Contaminant Monitoring Rule \(UCMR 4\)](https://www.health.state.mn.us/communities/environment/water/com/ucmr4.html) (<https://www.health.state.mn.us/communities/environment/water/com/ucmr4.html>).

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 | 18.4 ppm | 10.40 - 18.40 ppm |
| Sulfate | 500 ppm | 38.9 ppm | 26.40 - 38.90 ppm |

*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, 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

Groundwater supplies 75 percent of Minnesota's drinking water, and is found in aquifers beneath the surface of the land. Surface water supplies 25 percent of Minnesota's drinking water, and is the water in lakes, rivers, and streams above the surface of the land. 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 (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 Minnesota Department of Health provides information about your drinking water source(s) in a source water assessment, including:

- How Hastings 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 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. Hastings 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 \(https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam\)](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 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>)

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 [Common Sources](https://www.health.state.mn.us/communities/environment/lead/fs/common.html)
(<https://www.health.state.mn.us/communities/environment/lead/fs/common.html>).



Emerging Contaminant - PFAS

About PFAS

PFAS (per- and polyfluorinated alkyl substances) are a family of manmade chemicals that have been widely used since the 1940s in products such as Teflon, Scotchgard, microwave popcorn bags, various industrial applications, cosmetics and other consumer products. They have been called “forever chemicals” because they do not break down in the environment.

Several PFAS chemicals are present in all 6 Hastings City wells but do not exceed current MDH guidance values for multiple PFAS, as determined by a Health Risk Index of 1.0 (our 2022 results measure range from 0.16 to 0.84). A Health Risk Index greater than 1.0 is given a drinking water advisory by the MDH.

Based on advances in science and emerging knowledge of the health effects of PFAS on humans, it is expected that new EPA regulations and state guidelines will be lower than the current MDH thresholds and will likely trigger a requirement for Hastings to implement filtration or other treatment (mitigation) to remove PFAS from our drinking water supply to meet the new limits.

DRAFT Federal Guidance

On March 14, 2023 the U.S. Environmental Protection Agency (EPA) announced [draft Maximum Contaminant Levels \(MCLs\)](#) as a critical step toward reducing Americans' exposure to per- and polyfluoroalkyl substances (PFAS) through drinking water. The limits are expected to be finalized in late 2023 or early 2024. Additionally, the Minnesota Department of Health is re-evaluating and revising the MDH PFAS health-based guidance values to better protect public health. Updated MDH guidance for PFAS are expected to be released later in 2023. MDH is the agency that directly issues drinking water advisories for the City of Hastings. It is anticipated that a drinking water advisory will be issued to the City of Hastings once MDH finalizes their updated PFAS guidance values. The advisory would remain in effect until mitigation efforts are complete.

Your Water is Safe

The City Council is committed to making drinking water quality a priority in Hastings. Currently, city wells do not exceed MDH guidance values. The City of Hastings drinking water is safe to drink under current guidelines—there have been no significant changes in the City’s drinking water. PFAS levels have been monitored for several years and City wells have been within standards. Visit the City’s PFAS webpage to



learn more at <https://www.hastingsmn.gov/city-government/city-departments/public-works-and-engineering/pfas>

Help Protect Our Most Precious Resource – 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)

Water systems have ongoing infrastructure, operations and maintenance costs in supplying safe drinking water, and many are implementing additional efforts to help insure health equity and manageable water bills with:

- Turn the faucet off while brushing teeth.
- Shower instead of bathing to reduce water use.
- Fix running toilets by replacing flapper valves.



- Run full loads of laundry and use a minimal water use setting.
- Our water system partners with others to help consumers with limited resources make payments to their water bills.
- Contact us to learn more.