DEAR RESIDENT,
This report is issued to educate you about the quality of drinking water that the City of Minneapolis produced in 2018. We take pride in the water we provide to our residents. We are happy to report that no contaminants were detected at levels that violated federal drinking water standards during 2018.

ATTENTION: If you want help translating this information, call 3-1-1.
SPANISH - ATENCIÓN: Si desea recibir asistencia gratuita para traducir esta información, llame al 3-1-1.
SOMALI - OGOW: Haddii aad dooneyso in lagaa kaalmeeyo tarjamadda macluumaadkani oo lacag la’aan wac 3-1-1.
HMONG: Ceeb toom:Yog koj xav tau kev pab dawb txhais cov xov no, hu 3-1-1.

TTY: 612-673-2626

2018 Drinking Water Report
The City of Minneapolis is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2018. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Making Safe Drinking Water
Your drinking water comes from a surface water source: surface water drawn from the Mississippi River. Call 612-673-3000 or 311 if you have questions about Minneapolis'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.

Minneapolis Monitoring Results
This report contains our monitoring results from January 1 to December 31, 2018. 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.

No contaminants were detected at levels that violated federal drinking water standards.
However, some contaminants were detected in trace amounts that were below legal limits. 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 or by visiting the Minnesota Department of Health's webpage Basics of Monitoring and Testing of Drinking Water in Minnesota http://www.health.state.mn.us/communities/environment/water/factsheet/sampling.html
How to Read the Water Quality Data Table

The table below shows the contaminants we found last year or the most recent time we sampled for that contaminant. The table also shows 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 table.

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 table 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 or 1-800-818-9318 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

### City of Minneapolis 2018 Monitoring Results

<table>
<thead>
<tr>
<th>Contaminant (units)</th>
<th>MCLG</th>
<th>MCL</th>
<th>Level Found Range (2018)</th>
<th>Average Result*</th>
<th>Typical Source of Contaminant</th>
<th>Meets Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoride (ppm)</td>
<td>4.0</td>
<td>4.0</td>
<td>.64 - .75</td>
<td>0.69</td>
<td>The state of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.</td>
<td>✔</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5) (ppb)</td>
<td>N/A</td>
<td>60</td>
<td>1.2 - 42.00</td>
<td>28.4</td>
<td>By-product of drinking water disinfection.</td>
<td>✔</td>
</tr>
<tr>
<td>Nitrate (as Nitrogen) (ppm)</td>
<td>10</td>
<td>10.4</td>
<td>N/A</td>
<td>.2</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.</td>
<td>✔</td>
</tr>
<tr>
<td>TTHM (Total Trihalomethanes) (ppb)</td>
<td>N/A</td>
<td>80</td>
<td>6.2 - 45.90</td>
<td>28.7</td>
<td>By-product of drinking water disinfection.</td>
<td>✔</td>
</tr>
<tr>
<td>Turbidity (NTU)</td>
<td>N/A</td>
<td>TT</td>
<td>99.5% for the lowest monthly % of samples meeting the Turbidity limits</td>
<td>0.35 NTU Highest Single Measurement</td>
<td>Soil runoff.</td>
<td>✔</td>
</tr>
<tr>
<td>Chloramine (ppm)</td>
<td>4.0</td>
<td>MRDLG</td>
<td>2.6 - 3.5 Lowest Monthly Average</td>
<td>3.18 Highest Quarterly Average</td>
<td>Water additive used to control microbes.</td>
<td>✔</td>
</tr>
<tr>
<td>Total Organic Carbon</td>
<td>25% - 30%</td>
<td>Removal Required</td>
<td>Quarters below removal rate=0</td>
<td>52 - 63% Removal Achieved</td>
<td>Naturally present in the environment.</td>
<td>✔</td>
</tr>
<tr>
<td>Copper (ppm) (July 2018)</td>
<td>1.3</td>
<td>1.3</td>
<td>90% Level .06</td>
<td>0 out of 50 sites over AL</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits.</td>
<td>✔</td>
</tr>
<tr>
<td>Lead (ppb) (July 2018)</td>
<td>0</td>
<td>15</td>
<td>90% Level 3.8</td>
<td>2 out of 50 sites over AL</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits.</td>
<td>✔</td>
</tr>
</tbody>
</table>

#### TURBIDITY

**TURBIDITY is a measure of the water clarity. We monitor it because it is a good indicator of the effectiveness of our filtration system.**

* This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

♥ Follow-up testing revealed the source of the lead to be localized at the faucet.
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.

Potential Health Effects and Corrective Actions (If Applicable):

**Lead:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**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)

### Unregulated Contaminants – Tested in drinking water.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Comparison Value</th>
<th>Highest Average Result or Highest Single Test Result</th>
<th>Range of Detected Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese</td>
<td>100 ppb</td>
<td>0.61 ppb</td>
<td>0.00 - 1.31 ppb</td>
</tr>
<tr>
<td>Group of 6 Haloacetic Acids (HAA6Br)</td>
<td>N/A</td>
<td>1.09 ppb</td>
<td>0.00 - 2.73 ppb</td>
</tr>
<tr>
<td>Group of 9 Haloacetic Acids (HAA9)</td>
<td>N/A</td>
<td>20.38 ppb</td>
<td>2.18 - 41.80 ppb</td>
</tr>
</tbody>
</table>
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.

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 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.

VARIANCES AND EXEMPTIONS: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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 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 Minneapolis 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
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, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Minneapolis provides 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 Utility Connections at 612-673-2451, or you can check by following the steps at: https://apps.npr.org/find-lead-pipes-in-your-home/en/#intro
   - 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 water treatment units: Point-of-Use Water Treatment Units for Lead Reduction https://www.health.state.mn.us/communities/environment/water/factsheet/poulead.html
A career in the Water Industry is waiting for YOU!

St. Cloud Technical and Community College’s Water Environment Technologies (WETT) program provides you with the skills you need to land a great job in this rapidly growing industry. There are many benefits to this program:

► Hands-on learning
► 12 month program
► Metro and St. Cloud locations
► 100% placement rate

Call St. Cloud Technical and Community College at 1-320-308-5952 for more information on this career program or e-mail Gregg Kropp, Instructor: Gregg.kropp@sctcc.edu

LEARN MORE:

• Visit Frequently Asked Questions: Lead
  http://www.ci.minneapolis.mn.us/publicworks/water/WCMSP-188958

• 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 Lead Poisoning Prevention: Common Sources
  https://www.health.state.mn.us/communities/environment/lead/sources.html

Enjoy our tap water, but use water wisely

The City has plenty of tap water for everyone to use. However, it’s important to use this water wisely. You can find links to helpful resources at:

https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/conservation.html

SWITCH TO LOW-FLOW PLUMBING

Newer toilets can save two gallons or more of water per flush, and low-flow shower heads can use 2.5 fewer gallons per minute than ordinary ones.

LEAKS AND DRIPS ADD UP QUICKLY

A slow drip from a tap can waste 15 to 20 gallons of water per day, and a leaky toilet can waste hundreds of gallons a day.

SMARTER APPLIANCES USE LESS WATER

When shopping for a new washing machine, pay attention to the “water factor”- the number of gallons of water needed for each cubic foot of laundry. The lower the number, the more water it saves.

WASH WISELY

Consider how appliances use water. A washing machine takes 27 to 51 gallons per cycle, so make sure you use the right load-size setting. A dishwasher uses 7 to 14 gallons no matter how many dishes are inside, so only run yours when it’s full.

LAWN LESSONS

A rain gauge can help you determine whether and how much your lawn, garden and trees need to be watered. A good rain can eliminate the need to water for a week. If you do need to water, doing so at night will reduce evaporation. And make sure the sprinkler isn’t watering the streets or sidewalks.