



## Drinking Water Report

Lino Lakes 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 ways to protect our precious water resources.

Inside this report, you'll find results of the water quality monitoring performed from January 1 to December 31, 2018.

We are pleased to share the test results which show that Lino Lakes water met or exceeded all federal and state drinking water standards throughout 2018.

### Lino Lakes Water Source

Lino Lakes drinking water comes from a groundwater source: six wells which range from 258 to 338 feet deep, that draw water from the Prairie Du Chien-Jordan and Jordan-St. Lawrence aquifers.

The Minnesota Department of Health (MDH) provides information about your drinking water sources in a source water assessment which addresses ways Lino Lakes is protecting your drinking water sources, 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 well construction.

Call 651-201-4700 or 800-818-9318 between 8:00am and 4:30pm (M-F) to request a copy of your source water assessment or find it online at:

[www.health.state.mn.us/communities/environment/water/swp/swa](http://www.health.state.mn.us/communities/environment/water/swp/swa)



### Source Water information from MDH

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.

## Regulating Drinking Water

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 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. Get more information about contaminants and potential health effects by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

## Results of Monitoring

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 trace amounts as 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 webpage Basics of Monitoring and Testing of Drinking Water in Minnesota

[www.health.state.mn.us/communities/environment/water/factsheet/sampling](http://www.health.state.mn.us/communities/environment/water/factsheet/sampling)

The table on the following page lists the contaminants we found last year or the most recent time we sampled for that contaminant. It also displays the levels of those contaminants and the EPA'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 MDH at 651-201-4700 or 1-800-818-9318 between 8:00 am and 4:30 pm (M-F).

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.

***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. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791.***



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>) and Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)

[www.health.state.mn.us/communities/environment/water/com/ucmr4](http://www.health.state.mn.us/communities/environment/water/com/ucmr4)

Substance (units) test date	MCL	MCLG	Level Detected	Range	Major Source of Contaminant	Meets Standard
<b>Arsenic</b> (ppb) 2015	10.4	0	2.05	N/A	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	✓
<b>Barium</b> (ppm) 2017	2	2	0.13	N/A	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	✓
<b>Fluoride</b> (ppm)	4	4	.83*	0.71-0.9**	Erosion of natural deposits; Water additive to promote strong teeth.	✓
<b>Gross Alpha</b> (pCi/l)	15.4	0	4.1	N/A	Erosion of natural deposits.	✓
<b>Total Chlorine</b> (ppm)	4 (MRDL)	4 (MRDLG)	0.49*	0.29-0.54**	Water additive used to control microbes.	✓
<b>Total Haloacetic Acids</b> (ppb) 2014	60 (MRDL)	N/A	1.3	N/A	By-product of drinking water disinfection.	✓
<b>Total Trihalomethanes</b> (ppb) 2017	80 (MRDL)	N/A	0.6	0-0.6	By-product of drinking water disinfection.	✓
Substance (units) test date	AL	MCLG	90% Level	Sites Over AL	Major Source of Contaminant	Meets Standard
<b>Copper</b> (ppm) 7/5/17	1.3	0	0.34	1 of 30 sites	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
<b>Lead</b> (ppb) 7/5/17	15	0	1	1 of 30 sites	Corrosion of household plumbing systems; Erosion of natural deposits.	✓

\*Highest quarterly average \*\*Lowest-highest monthly average

## Understanding the Table

**Level Detected:** 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.

**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.

**AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**90% Level:** This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. For

Unregulated Substance (units)	Level Detected	Comparison Value
<b>Sodium***</b> (ppm)	5.13	20
<b>Sulfate</b> (ppm)	5.64	500

\*\*\*Home water softening can increase the level of sodium in your water

example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.

**ppm:** Parts per million or milligrams per liter (mg/l). One ppm is like one drop in one million drops of water, or about one cup in a swimming pool.

**ppb:** Parts per billion or micrograms per liter (µg/l). One ppb in water is like one drop in one billion drops of water, or about one drop in a swimming pool.

**pCi/l:** PicoCuries per liter. A measure of radioactivity.

**N/A:** Not Applicable (does not apply).



## Lead

You may come in contact with lead through paint, water, dust, soil, food, hobbies, or your job. This 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 present in drinking water at the source, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Lino Lakes provides high quality drinking water and there are no lead service lines in its public water distribution system, but it cannot control the plumbing materials used in private buildings.



To limit exposure to lead in drinking water, run your water for 30-60 seconds before using it for drinking or cooking when the water has not been used for over six hours.

Use cold water for drinking, making food, and making baby formula as hot water releases more lead from plumbing than cold water.

In most cases, these actions should keep lead levels low in your drinking water. If you are still concerned about lead, you may arrange with a laboratory to test your tap water. A lab test is the only way to know if the lead concentration is reduced.

Testing your water is important if young children or pregnant women drink your tap water.

Contact an MDH accredited laboratory to get a sample container and instructions on how to submit a sample to the Environmental Laboratory Accreditation Program:

[www.health.state.mn.us/accreditation](http://www.health.state.mn.us/accreditation)

The Minnesota Department of Health can help you understand your test results. If your test results show that your water has high levels of lead after you let the water run, treat your water.

Read about water treatment units:

[www.health.state.mn.us/communities/environment/water/factsheet/poulead.html](http://www.health.state.mn.us/communities/environment/water/factsheet/poulead.html)

To learn more about lead in drinking water:

[www.health.state.mn.us/communities/environment/water/contaminants/lead.html](http://www.health.state.mn.us/communities/environment/water/contaminants/lead.html)

[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:

[www.health.state.mn.us/communities/environment/lead/sources.html](http://www.health.state.mn.us/communities/environment/lead/sources.html)

## 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 a concentration between 0.5 to 1.5 parts per million (ppm), with an optimal fluoridation goal between 0.7 and 1.2 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.



### Lawn Watering

On summer days, Lino Lakes water consumption increases to more than 4 times that of other seasons. Thoughtful watering habits are critical to protect the quality and cost of our drinking water.

#### Best Watering Practices

- Only irrigate on weeks with less than 1 inch of rainfall
- Irrigate only mornings before 10am
- Soak 6-8 inches of soil (takes ~1 inch of water)
- Aim nozzles so all water falls on lawn, not streets, sidewalks or driveways

#### Lino Lakes Watering Restrictions

- Lawn watering prohibited between 10:00 am - 6:00 pm year round
- Odd/even ban in place from May 15-September 15.
- Exemptions to the odd/even ban for new sod or seed permitted by calling 651-982-2440
- Restrictions do not apply to hand watering or for properties using a private well for sprinkling

### Aesthetic Water Properties

Calcium- 57.3 ppm  
Iron- 2.7 ppm  
Total Hardness- 13.7 grains

**Contact Justin Williams, Utilities Supervisor at 651-982-2452 if you have questions about Lino Lakes drinking water. You can also ask for information about how you can take part in decisions that may affect water quality.**