

## Luverne 2023 Drinking Water Report

This report contains important information about your drinking water. Have someone translate it for you or speak with someone who understands it.

Información importante. Si no la entiende, haga que alguien se la traduzca ahora.

### Making Safe Drinking Water

Your drinking water comes from a groundwater source: eight wells ranging from 35 to 44 feet deep, that draw water from the Quaternary Buried Unconfined and Quaternary Water Table aquifers.

Luverne 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 Darrel Ykema, Superintendent, at (507) 920-5988 or [dykema@cityofluverne.org](mailto:dykema@cityofluverne.org) if you have questions about Luverne'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.

### Luverne Monitoring Results

This report contains our monitoring results from January 1 to December 31, 2023.

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

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- **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.
- **ppt (parts per trillion):** One part per trillion is like one drop in one trillion drops of water, or about one drop in an Olympic sized swimming pool. ppt is the same as nanograms per liter (ng/l).
- **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
Lead (08/25/22)	0 ppb	90% of homes less than 15 ppb	2.37 ppb	1 out of 20	NO	Corrosion of household plumbing.
Copper (08/25/22)	0 ppm	90% of homes less than 1.3 ppm	0.18 ppm	0 out of 20	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
Nitrate	10 ppm	10.4 ppm	0.58 ppm	N/A	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; 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 Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
Total Trihalomethanes (TTHMs)	N/A	80 ppb	18.1 ppb	N/A	NO	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA)	N/A	60 ppb	10.9 ppb	N/A	NO	By-product of drinking water disinfection.
Total Chlorine	4.0 ppm	4.0 ppm	1.17 ppm	0.51 - 1.42 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	0.57 ppm	0.56 - 0.58 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth.

**Potential Health Effects and Corrective Actions (If Applicable)**

Fluoride: If your drinking water fluoride levels are below the optimal concentration range of 0.5 to 0.9 ppm, please talk with your dentist about how you can protect your teeth and your family's teeth from tooth decay and cavities. For more information, visit: MDH Drinking Water Fluoridation (<https://www.health.state.mn.us/communities/environment/water/com/fluoride.html>). 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 an optimal concentration between 0.5 to 0.9 parts per million (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.

**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 Laverne 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. Luverne 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 [Lead Poisoning Prevention: Common Sources \(https://www.health.state.mn.us/communities/environment/lead/sources.html\)](https://www.health.state.mn.us/communities/environment/lead/sources.html).

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.

## Lewis & Clark Regional Water System 2023 Water Quality Summary.

In 2023 we delivered over 8.4 billion gallons of water to our connected member systems.

Lewis & Clark water originates from wells that tap into an underground source adjacent to the Missouri River. This source is called the Missouri: Elk Point Aquifer. After treatment the water quality is very good. Lewis & Clark does

extensive testing for contaminants in our water and only the few items listed below on the Table of Detected Contaminants were found to be present in reportable quantities. The level of these contaminants is below what would be considered to be harmful.

**2023 Table of Detected Regulated Contaminants For Lewis and Clark Regional Water System (EPA ID 2288)**

**Terms and abbreviations used in this table:**

- \* *Maximum Contaminant Level Goal (MCLG): 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.*
- \* *Maximum Contaminant Level (MCL): 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.*
- \* *Action Level (AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.*
- \* *Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU*
- \* *Running Annual Average(RAA): Compliance is calculated using the running annual average of samples from designated monitoring locations.*

**Units:**

- \*MFL: million fibers per liter      \*pCi/l: picocuries per liter(a measure of radioactivity)      \*ppt: parts per trillion, or nanograms per liter
- \*mrem/year: millirems per year (a measure of radiation absorbed by the body)      \*ppm: parts per million, or milligrams per liter(mg/l)      \*ppq: parts per quadrillion, or picograms per liter
- \*NTU: Nephelometric Turbidity Units      \*ppb: parts per billion, or micrograms per liter(ug/l)      \*pspm: positive samples per month

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.0	0		AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	0	0		AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Arsenic	5		10/31/22	10	0	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	0.015		10/31/22	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	1.81	0.58 -1.81	12/26/23	4	<4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen)	0.3		10/23/23	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Please direct questions regarding this information to Mr Jim Auen with the Lewis and Clark Regional Water System public water system at (605)624-8700.

**Additional Parameters of Interest:**

Parameter (units):	Average Level:	Acceptable Level:
Total Hardness (as CaCO3) (ppm)	155	
Alkalinity (ppm)	70	
Calcium (asCaCO3) (ppm)	85	
Iron (ppm)	.01	0.3
Manganese (ppm)	.01	0.05
pH (units)	8.5	7 – 9
Total Chlorine (ppm)	2.5	0.3-3.9