MOVING BLOOMINGTON Forward
creating our shared future

CITY OF BLOOMINGTON MINNESOTA

Water Quality Report

2023 test results
Reported June 2024

Inside

Keeping drinking water safe

The Water Quality Report is created to advance residents' understanding of drinking water and heighten awareness of the need to protect precious water resources. The report includes information about water sources, water treatment, the City's water system and topics that address frequently asked questions.

See page WQR 4 for the results of water quality monitoring on Bloomington's water sources from January 1 to December 31, 2023.

Get involved

Public Works welcomes input on water quality issues. Contact the water quality supervisor at 952-563-4904.

If you have questions about your water or need assistance, call or visit the City's website at blm.mn/utilities or call the water plant (24 hours a day) 952-563-4905.

Este informe contiene información muy importante. Si necesita una traducción del mismo, sírvase llamar al MN RELAY 711.

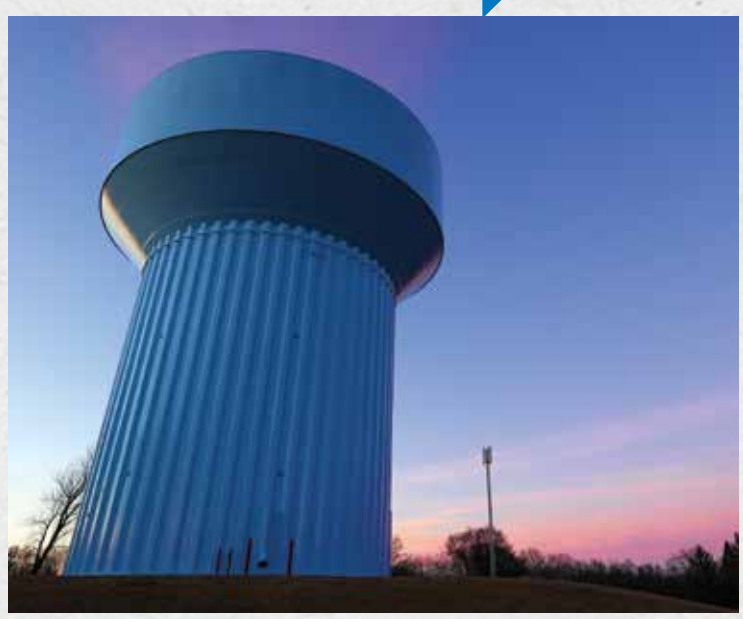
Warbixintaan waxaa ku jira macluumaad aad muhiim u ah. Haddii aad u baahan tahay in laguu turjumo, fadlan la xiriir MN RELAY 711.

Ban bao cao nay co cac thong tin rat quan trong. Neu quy vi can ban dich tieng Viet, xin goi so MN RELAY 711.

Ensuring safe drinking water in Bloomington

As your public water supplier, City water experts regularly test the water from Bloomington's six deep wells. The tests look for many chemicals, including PFAS, or per- and polyfluoroalkyl substances, often referred to as "forever chemicals."

To date, PFAS levels in Bloomington's drinking water have been less than the levels of PFAS established by the Environmental Protection Agency. (See page WQR 4.) Bloomington's water treatment facility also lime softens and filters with anthracite coal, sand and garnet to reduce the level of suspended solids, or turbidity, in the water.



More About PFAS: Forever chemicals

PFAS were created in the 1930s somewhat accidently before being produced and used intentionally in industrial processes and in consumer goods. Due to their unique ability to both resist and attract water, water does not break PFAS down. This is why they are called "forever chemicals" and why they have been beneficial in stabilizing manufactured items and making them more durable.

PFAS can be found in many cleaning products, electronics, fire extinguishing foam, food packaging, nonstick cookware and personal care products.

Current health research suggests that exposure to certain PFAS may lead to adverse health outcomes including decreased fertility, developmental effects in children, increased risk of some cancers, reduced immunity, disruption of natural hormones, increased cholesterol levels and obesity.

Recently many states have introduced legislation to ban or limit the use of PFAS.

For more information about PFAS testing, including current PFAS monitoring, visit epa.gov/pfas.

Understanding EPA revised lead and copper rule

Bloomington Utilities is completing a water service line inventory as part of the Environmental Protection Agency's new federal requirements. The inventory goals are to identify all public and private service pipe materials and replace lead and certain galvanized pipes.

Bloomington in action

Bloomington passed Ordinance 225 in February 1960 requiring copper pipe for all service lines that are two inches in diameter and smaller. Since most of Bloomington's drinking water system was built after 1960, non-copper services were not typically used and Public Works is not aware of any lead or galvanized lines that will require replacement.

Utilities staff continues to confirm Bloomington's lead-free drinking water system status and material verification into everyday operations. Property owners will be notified in 2024 only if the City-owned service line material is unknown or requires replacement.

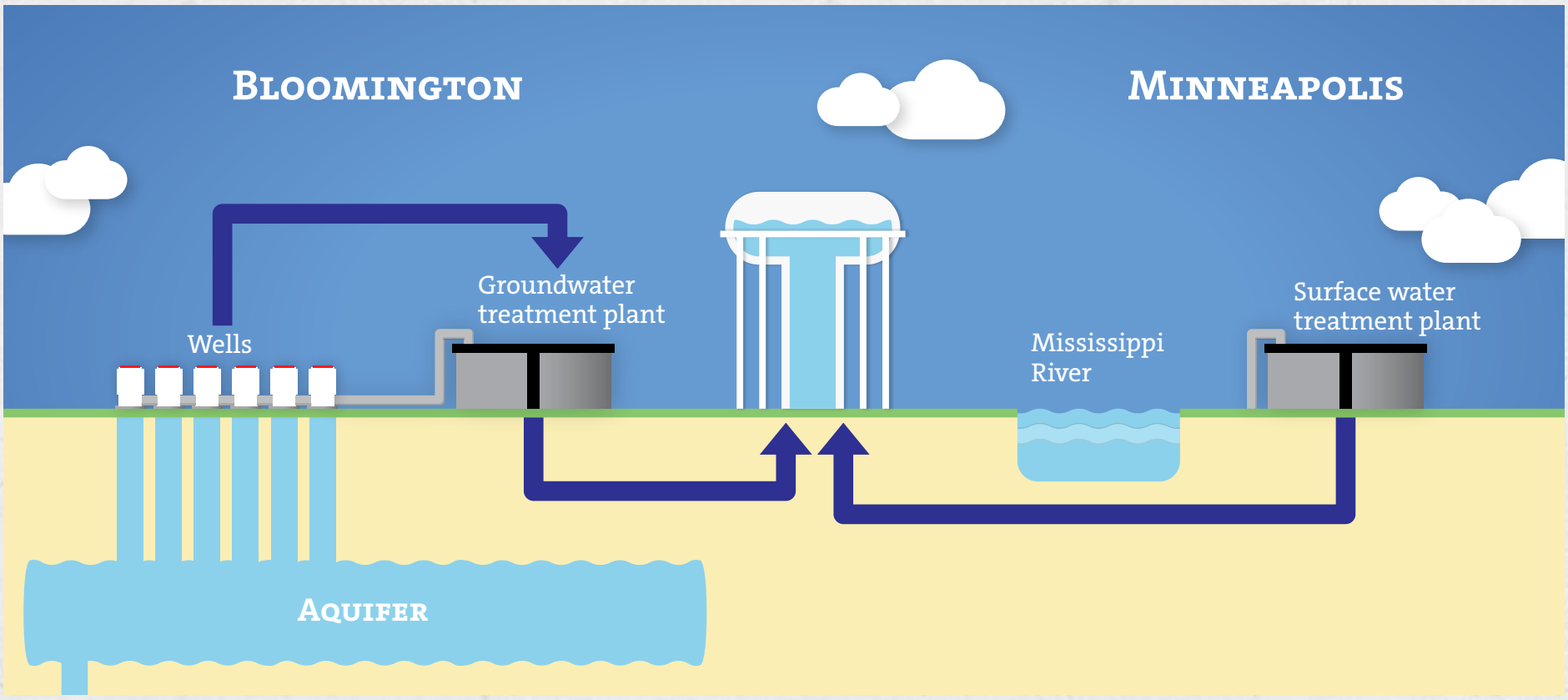
What you can do

Home plumbing is likely the primary source of any lead in our drinking water. While Public Works is responsible for maintaining City service lines, it does not have control over materials used in home plumbing. However, plumbing codes provide requirements for typical home plumbing projects and construction.

Lead pipes, solder, brass faucets and other plumbing parts pose the greatest threat of increased levels of lead in water. To minimize your exposure to lead from your home plumbing, use cold water for cooking and drinking and allow your cold water to run for 30 seconds to two minutes to flush out any contaminated water in your pipes before using it.

For more information, call the Safe Drinking Water Hotline at 1-800-426-4791 or visit epa.gov/safewater/lead.

Tap water sources



Bloomington wells

The City's water treatment plant draws water from deep groundwater wells that extend into the Jordan Sandstone, Prairie du Chien Group and Tunnel City-Wonewoc Sandstone.

Mississippi River

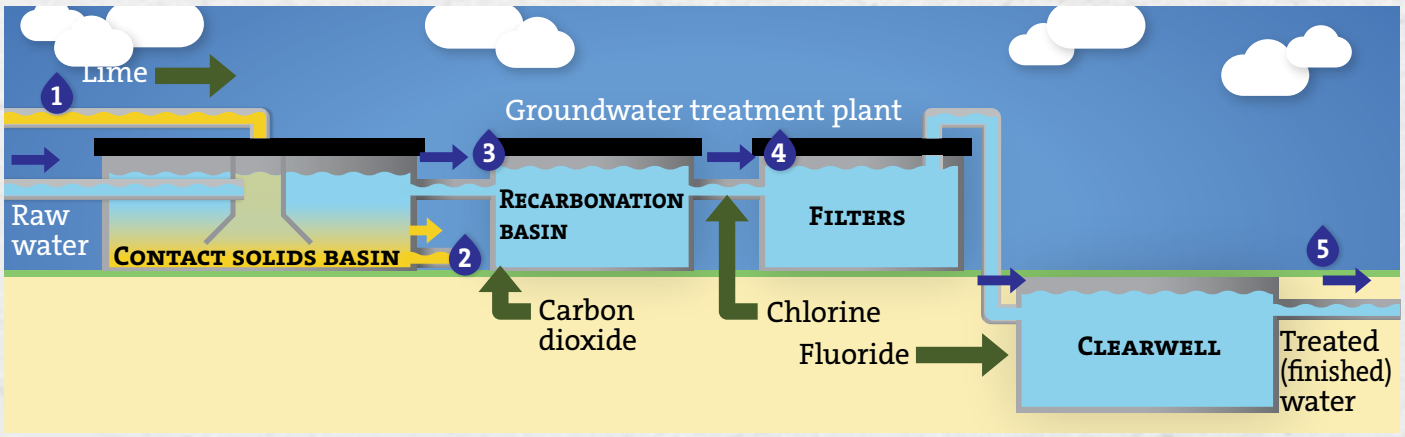
To supplement production at the water treatment plant and provide system resiliency, Bloomington purchases finished water from the city of Minneapolis. Minneapolis' surface water treatment plant takes raw water from the Mississippi River. Treated water from Bloomington's plant is blended with similarly treated water from Minneapolis.

For more information about water sources, visit blm.mn/water.

Bloomington's water supply

The City of Bloomington's municipal water supply comes from two sources: Bloomington municipal groundwater wells and a connection with the city of Minneapolis water supply system.

Water treatment process



1. The softening process begins when slaked quicklime is mixed with raw water in one of the City's two solids contact basins. Each basin holds 550,000 gallons of water.

2. The lime-and-water mixture causes a chemical reaction that creates calcium and magnesium, two main components of hardness, to form insoluble particles called floc. Floc particles settle to the bottom of the basins and are removed, dewatered and used by Minnesota farmers as a USDA-approved source of lime to stabilize the pH in farm fields.

3. The water enters a recarbonation basin where it is adjusted to the proper pH by adding carbon dioxide. A precise amount of chlorine is added to discourage bacterial growth as the water travels through the City's distribution system.

4. The water is filtered to remove any remaining particles, then enters an underground reservoir called a clearwell where small quantities of fluoride are added. Because fluoride promotes strong teeth and bones, fluoridation is mandated by state law at a dosage between 0.5 and 0.9 parts per million. *See page WQR 4.*

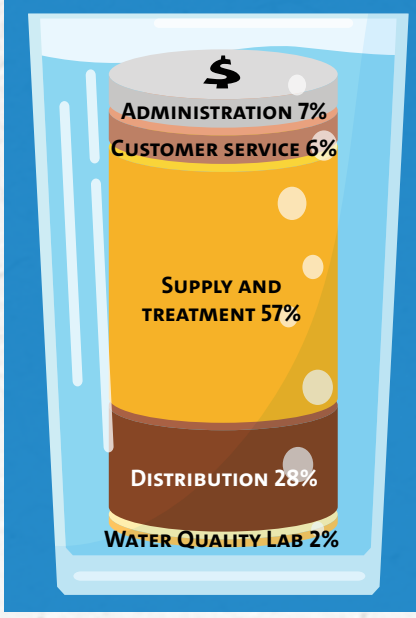
5. Finished water from the City's treatment plant is pumped into the distribution system, where it is mixed with treated water purchased from the city of Minneapolis. For more information, visit blm.mn/water.

Water testing

The Tri-City William Lloyd Analytical Laboratory is certified by the Minnesota Department of Health to test water. In 2023, the lab performed more than 8,000 tests on Bloomington's well, raw, finished and distribution water. The lab also analyzed 80 samples for new water main construction projects and conducted 370 water quality tests on Bloomington's surface water bodies.

The cost of safe drinking water

Keeping Bloomington's water safe is a primary focus for the City's Utilities Division. And so is using taxpayer dollars wisely. The graphic below shows how funds are used to ensure safe drinking water.



Frequently asked questions

How much water does Bloomington use?

In 2023, 25,221 residential, commercial and multifamily customers received 3.7 billion gallons of clean water. That's an average of 10.4 million gallons of clean water daily.

Should I have a water softener?

Good news—Bloomington is one of only 24 Minnesota municipal utilities that softens its water. As a result, homeowners do not need to purchase their own water-softening systems.

The City's lime-softening process removes most of the hardness in Bloomington's water, reducing it from 19 grains per gallon to about 5.2 grains per gallon finished water. The water is also treated to be noncorrosive to help prevent unsafe levels of lead and copper from leaching into the water from home plumbing. The estimated cost of home water softening ranges between $5.35 and $6.09 per 1,000 gallons of water, compared to $4.67 per 1,000 gallons for City-treated water in 2023.

Is water that tastes or smells unusual safe to drink?

Yes! While earthy, fishy, musty and grassy odors and tastes can be unpleasant, they very rarely present any health risks.

The City of Bloomington supplements its water with water from the city of Minneapolis during high water usage months. Though Minneapolis treats the water it draws from the Mississippi River, naturally occurring organic matter that decays in surface waters can be incredibly difficult to remove. This can result in taste and odor irregularities, which tend to be reported more frequently at certain times of the year.

How do I pay my water bill?

The City's online bill pay service offers easy, convenient and secure options for you to pay your utility bills online using your bank routing and account number, Visa, Mastercard, Discover or American Express. You can either:

- Create a username and password (with an account, you also receive email notifications when your bill is available and just before your due date), or
- Login in as a guest using the utility account number and name on your billing statement.

For more information, visit blm.mn/paymybill.

Why is the water out of my faucet cloudy?

When Bloomington water appears cloudy coming out of the tap, it's usually due to the presence of oxygen or calcium.

Oxygen: Changes in temperature and pressure can cause more oxygen to be suspended in water than it can hold. No harm comes from using oxygenated water, and there's no need for corrective action.

Calcium: Water treatment efforts to reduce corrosion and lead or copper leaching from plumbing can result in trace amounts of calcium sediment. Calcium is usually noticed in cold water as white or grayish flecks that usually settle within 30 minutes. Water containing calcium is safe for drinking and cooking.

To clear calcium sediment: Allow an hour or two for water to settle in the City's system, then open a large faucet and run cold water for about 20 minutes. This draws clear water through your system and removes remaining calcium.

Is Bloomington water safe if I have a compromised immune system?

Bloomington's water is safe for nearly everyone. Immunocompromised people undergoing chemotherapy or those with an organ transplant, HIV/AIDS or other immune system disorders should seek advice from their health care providers about drinking water.

Guidelines from the Environmental Protection Agency and Centers for Disease Control to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline: 1-800-426-4791.

Are there careers in the water industry?

Yes! Workers in the field are in high demand due to the importance of clean, safe drinking water. Placement rates for water environment technology professionals are higher than many other occupations. Opportunities exist in both the public and private sectors.

For more information, visit the American Water Works Association Minnesota Section's website at blm.mn/watercareers.

Bloomington's water is regularly tested

Water purity information

Reference: United States Environmental Protection Agency

Drinking water sources in the United States for both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. Microbial contaminants from sewage treatment plants, septic systems, livestock operation and wildlife may be present in raw, untreated water.

To ensure tap water is safe to drink, the Environmental Protection Agency regulates certain contaminants in water provided by public systems. The Food and Drug Administration regulates contaminants in bottled water to provide the same public health protection. For more information, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Adhering to federal guidelines, acceptable levels of water contaminants are measured and reported in parts per million (PPM) and parts per billion (PPB).

It can be helpful to imagine equivalents to better understand the amount those measurements mean.

PPM is like:

- 4 drops of ink in a 55-gallon drum
- 1 inch in 16 miles
- 1 minute in 2 years

PPB is like:

- 1 Ping-Pong ball in an Olympic-size pool full of them
- A pinch of salt in 10 tons of potato chips
- 1 second in 32 years

Information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

2023 Water quality results

The Minnesota Department of Health and City staff regularly test samples of Bloomington's water for contaminants. Substances detected appear in the table below. Undetected substances are not listed and unregulated contaminants are only listed if federal health risk limits are exceeded. The top half of the table summarizes test results performed on Bloomington water. The lower half presents results for Minneapolis water which is blended into Bloomington's distribution system.

Information on Bloomington's Source Water Assessment can be found at blm.mn/swa or by calling the MDH at 651-201-4700 or 1-888-345-0823.

Detected substance	Amount detected	Maximum (MCL)	Target (MCLG)	Typical source of substance	Type	Meets standards?
City of Bloomington						
Chlorine (ppm)	Avg = 2.17 (1.08-2.85)	4 MRDL	4 MRDLG	Water additive used to control microbes	R	Yes
Copper (ppm) (06/2023)	90% = 0.02 (0 of 30 sites over AL)	AL = 1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits	R	Yes
Fluoride (ppm)	Avg = 0.71 (0.67-0.73)	4	4	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	R	Yes
Haloacetic acids (HAA5) (ppb)	Avg = 20.2 (0.00-32.5)	60	0	Byproduct of drinking water disinfection	R	Yes
Lead (ppb) (06/2023)	90% = 1.9 (0 of 30 sites over AL)	AL = 15	0	Corrosion of household plumbing systems; erosion of natural deposits *See page WQR 3*	R	Yes
Trihalomethanes (TTHM) (ppb)	Avg = 22.4 (0.00-36.0)	80	0	Byproduct of drinking water disinfection	R	Yes

Contaminant	EPA's ideal goal (MCLG)	EPA's Limit (MCL)	Number of test results with E. coli	Number of treatment technique exceedances	Violation	Typical sources
E. coli	0	TT	1	0	No	Human and animal fecal waste

City of Minneapolis						
Total Chlorine (ppm)	Avg = 3.31 (3.0-3.7)	4 MRDL	4 MRDLG	Water additive used to control microbes	R	Yes
Copper (ppm) (08/11/21)	90% = 0.05 (0 of 63 sites over AL)	AL = 1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits	R	Yes
Fluoride (ppm)	Avg = 0.73 (0.67-0.75)	4	4	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	R	Yes
Haloacetic acids (HAA5) (ppb)	Avg = 23.5 (1.5-29.3)	60	0	Byproduct of drinking water disinfection	R	Yes
Lead (ppb) (08/11/21)	90% = 1.6 (0 of 63 sites over AL)	AL = 15	0	Corrosion of household plumbing systems; erosion of natural deposits	R	Yes
Trihalomethanes (TTHM) (ppb)	Avg = 32.9 (8.7-42.6)	80	0	Byproduct of drinking water disinfection	R	Yes
Turbidity (NTU)	0.09 NTU	NTU	100% in compliance	Soil runoff	R	Yes
Nitrate (ppm)	Avg = 0.98 (0.86-0.98)	10	10.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	R	Yes

Detected substance	Range of percent removal achieved	Average of percent removal achieved	Typical source of substance	Three-month periods (quarters) out of compliance
City of Minneapolis				
Total organic carbon	48 – 68%	59%	Naturally present in the environment	0

Unregulated contaminants	Comparison value	Highest single test result	Range of detected test results
City of Minneapolis			
Sodium	20 ppm	22.4 ppm	n/a
Sulfate	500 ppm	29 ppm	n/a
Perfluorobutanoic Acid (PFBA)	7000 ppt	6.2 ppt	5.4-6.8 ppt

Key

AL **Action level.** An amount that, if exceeded, triggers a specific response that a water system must follow.

cfu **Colony forming unit.**

MCL **Maximum contaminant level.** The highest level allowed in drinking water. MCLs are set as close to MCLG as feasible using the best available treatment technology.

MCLG **Maximum contaminant level goal.** Below this level there is no known or expected health risk. MCLGs allow for a margin of safety.

MRDL **Maximum residual disinfectant level.**

MRDLG **Maximum residual disinfectant level goal.**

NA **Not applicable.**

nd **No detection.**

NTU **Nephelometric turbidity unit.** A measure of water clarity.

ppb **Parts per billion.** Units of a substance, in pure form, found in every billion units of water.

ppm **Parts per million.** Units of a substance, in pure form, found in every million units of water.

R **Regulated.**

TT **Treatment technique.** Routine and repeat samples are total coli-form-positive and either is E. coli positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coli-form-positive repeat sample for E. coli.

U **Unregulated**, but monitoring is required by the State of Minnesota. No limits have been set for this compound.

90% **Value obtained after disregarding the 10 percent of the samples taken that had the highest levels.**