City of Beloit Water Resources Division

2022 Consumer Confidence Report
Drinking Water Quality

The City of Beloit
Clean Water for Future Generations

The City of Beloit Water Resources Division is pleased to present customers with the Annual Drinking Water Quality Report. This information is designed to inform you about the services and water quality the City provides each day.

City of Beloit's PFAS Testing in Drinking Water Supply

PFAS are a group of chemicals made by humans. Since the 1950s, PFAS have been used in many consumer products and industrial processes. While some types of PFAS have been phased out, other types of PFAS are used as replacements in everyday products such as cleaning products, nonstick cookware, shampoo, makeup, and water resistant fabrics. One way people can be exposed to PFAS is through their drinking water. The City of Beloit has analyzed its drinking water through voluntary and WI DNR required sampling and all results are below Wisconsin's maximum contaminant level(MCL) and Department of Health Services' (DHS) health advisory level. See page 4 for results.

Water Main Breaks

There were 30 water main breaks in our system in 2022. There were 3 main breaks in South Beloit's water distribution system. A picture of a broken main and a typical repair are shown below. If you hear running water underground or see unusual snow melt please notify the Water Resources Division at (608) 364-2888.

Health Information

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. Beloit drinking water is significantly below that nitrate level (see page 3). 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 seek advice from your health care provider.

Beloit's I-90 Water Tower
Picture by Jim Orr

Inside

Do you have questions?

For Billing:
608-364-6663

For Service:
608-364-2888

For additional information, search ***Water Utility*** on the City of Beloit website:
www.beloitwi.gov

¿Necessito en Espanol?
www.beloitwi.gov/water

Checking for Leaks

- Take a look at your water usage during a colder month, such as January or February. If a family of four exceeds 16 units per month, there may be a leak. **One unit is equivalent to 100 cubic feet or 748 gallons of water.**
- Check your water meter before and after a two hour period when no water is being used. If the meter changes at all, you probably have a leak.
- Identify toilet leaks by placing a few drops of food coloring in the toilet tank. If any color shows up in the bowl after 15 minutes, you have a leak. (Be sure to flush immediately after the experiment to avoid staining the bowl.)
- Examine faucet gaskets and pipe fittings for any water on the outside of the pipe to check for surface leaks.

Educational Information

While all water has some level of contaminants, the City of Beloit regularly tests levels to ensure the water is safe to drink.

Contaminant	Typical Source
Arsenic	Runoff from orchards; discharge from glass and electronic production; erosion of natural deposits
Barium	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	Discharge from steel and pulp mills; erosion of natural deposits
Copper	Corrosion of household plumbing; erosion of natural deposits
Cyanide	Discharge from steel, metal, plastic, or fertilizer factories
Fluoride	Water additive; discharge from fertilizer or aluminum factories; erosion of natural deposits
Lead	Corrosion of household plumbing; erosion of natural deposits. For more information about lead in drinking water, please see the DNR and EPA websites.
Mercury	Discharge from refineries and factories; runoff from landfills and croplands; erosion of natural deposits
Nickel	Occurs naturally in soils, ground/surface water
Nitrate/Nitrite	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radium	Erosion of natural deposits
Selenium	Discharge from petroleum & metal refineries; discharge from mines; erosion of natural deposits
Sodium	Erosion of natural deposits

Water Conservation Tips

Water is a valuable resource that should not be wasted. The high quality water that we need and expect in our homes is ***not*** an infinite resource. Conserving water will also help you save money.

- Water only when grass or plants need it, and only during the cool part of the day
- Repair or replace leaky faucets, toilets, and other fixtures
- Scrape food left on plates (including oils and grease) into the garbage instead of using water to rinse it down the disposal
- Let your pots and pans soak instead of running the water while you clean them.
- If you wash dishes by hand, fill one half of the sink with soapy water and the other half with clean water instead of letting the water run.

Help keep mercury and other pollutants out of our drinking water. Properly dispose of all mercury containing devices such as fluorescent lights and mercury thermometers. Visit www.epa.gov for more information. Household hazardous chemicals can be disposed of through the Rock County Clean Sweep program.

Water Quality Information

Disinfection Byproducts		MCL	MCLG	Range Detected	Sample Date	Violation Yes/No
HAA5	ppb	60	60	1-2	8/16/2022	NO
TTHM	ppb	80	0	3.4-5.7	8/16/2022	NO
Inorganic Contaminants		MCL	MCLG	Range	Sample Date	Violation
Arsenic	ppb	10	0	0-2	3/17/2020	NO
Barium	ppm	2000	2000	0.023-0.069	3/17/2020	NO
Chromium	ppb	100	100	0-2	3/17/2020	NO
Copper	ppm	AL=1300	1300	0 of 30 above MCL	8/18/2020	NO
Fluoride	ppm	4	4	0.1-1.0	Everyday in 2022	NO
Lead	ppb	AL=15	0	1 of 30 above MCL	8/18/2020	NO
Mercury	ppb	2	2	ND	3/1/2017	NO
Nickel	ppb	100	100	0.7-8.8	3/17/2020	NO
Nitrate (NO3-N)	ppm	10	10	0.00-5.90	Quarterly 2022	NO
Nitrate Blended wells 11 &14	ppm	10	10	4.9-5.9	Quarterly 2022	NO
Nitrite (NO2-N)	ppm	1	1	ND-0.078	2/26/2014	NO
Sodium	ppm	N/A	N/A	3.9-71.00	3/17/2020	NO
Thallium Total	ppb	2	0.5	0.0-0.1	3/17/2020	NO
Radioactive Contaminants		MCL	MCLG	Range	Sample Date	Violation
Radium, (226+228)	pCi/L	5	0	3.4-4.2	Quarterly 2022	NO
Combined Uranium	ppb	30	0	0.0-0.4	Quarterly 2022	NO
Gross Alpha, Excl. R & U	pCi/L	15	0	3.8-11.4	Quarterly 2022	NO
Gross Alpha, Incl. R & U	pCi/L	N/A	N/A	4.0-11.4	Quarterly 2022	NO
Synthetic Organic Contaminants including Pesticides and Herbicides		MCL	MCLG	Range	Sample Date	Violation
DI(2-Ethylhexyl) phthalate	ppb	6	0	ND	2/26/14	NO
Unregulated Contaminants		MCL	MCLG	Range	Sample Date	Violation
Bromodichloromethane	ppb	80	80	1.1-1.7	8/16/2022	NO
Bromoform	ppb	80	80	.44-.90	8/16/2022	NO
Chloroform	ppb	80	80	.76-.9	8/16/2022	NO
Dibromochloromethane	ppb	80	80	1.1-2.2	8/16/2022	NO
Dioxane	ppb	N/A	N/A	ND-0.18	9/16/2013	NO
Hexavalent Chromium	ppb	N/A	N/A	0.052-0.70	9/16/2013	NO
Strontium	ppb	N/A	N/A	1.1-92	9/16/2013	NO
Sulfate	ppm	250	250	9.50-32.70	8/26/2020	NO
Vanadium	ppb	N/A	N/A	ND-0.74	3/01/2017	NO

PFAS Contaminants with a Recommended Health Advisory Level

The following table list PFAS contaminants which were detected and that have a Recommended Public Health Groundwater Standard (RPHGS), Health Advisory Level (HAL), or a Maximum Contaminant Level (MCL). There are no violations for detections of contaminants that exceed the RPHGS or HAL. The RPHGS are levels at which concentrations of the contaminant may present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

Typical Source of Contaminant		Drinking water is one of many ways that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.			
Contaminant	Units	RPHGS or HAL	MCL	Range	Sampling Date
PFBS	ppt	450000	N/A	0.00-2.79	2021, 2022, 2023
PFHxS	ppt	40	N/A	0.00-2.05	2021, 2022, 2023
PFOS	ppt	20	70	0.00-3.28	2021, 2022, 2023
PFOA	ppt	20	70	0.00-1.85	2021, 2023
PFHxA	ppt	150,000	N/A	0.00-1.07	2021, 2023
PFHpA	ppt	N/A	N/A	0.00-0.53	2023

Other types of PFAS tested for with no detects: PFPeA, PFHxA, PFOA, PFNA, PFDA, PFUnA, PFDoA, PFTrDA, PFTeDA, PFPeS, PFHxS, PFHpS, PFNS, PFDS, PFDoS, NMeFOSAA, NEtFOSAA, HFPO-DA, 9Cl-PF3ONS, 11Cl-pf3OUdS, DONA, PFTA, PFHpA

DEFINITION OF TERMS	
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. The MCL is set as close to the MCLG 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. The MCLG allows for a margin of safety.
ND	Non-Detect (no detectable level)
pCi/l	Picocuries per liter (a measure of radioactivity)
ppm	Parts per million, or milligrams per liter (mg/l)
ppb	Parts per billion, or micrograms per liter (µg/l)
ppt	Parts per trillion, or nanograms per liter (ng/l)

Water Utility Facts

The City of Beloit Water Utility strives to provide high quality, dependable water service to its customers in the Greater Beloit area. The water provided by the City of Beloit all comes from groundwater aquifers. The water utility

Well #	Depth (feet)	Gallons per Minute	Gallons per Year
4	967	500	69,000
5	1200	1500	64,759,000
8	140	4000	414,438,000
9	1130	1400	370,652,000
10	113	2400	42,458,000
11	150	2800	576,229,000
12	107	2800	677,143,000
14	1100	1400	314,562,000
Total Water in 2022			2,460,310,000

Did you know?

- The hardness of Beloit's water is 280-400 mg/l of calcium or
- The water utility treats water at each pumping station with
- If you see a water main break (see pictures below) you should report it right away (608) 364-2888

Department of Public Works
Utilities and Engineering Facility
2400 Springbrook Court
Beloit, WI 53511
Phone: 608-364-2888

CITY OF Beloit WISCONSIN

Web Links:
www.beloitwi.gov/water
www.dnr.wi.gov/topic/DrinkingWater
www.epa.gov/ground-water-and-drinking-