

City of Beloit Water Resources Division

2019 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.

Well #9 Radium Exceedance

Water samples collected from Well #9 on November 7, 2018, March 13, 2019, June 26, 2019 and September 18, 2019 indicated the presence of combined radium (radium 226+228) above the Maximum Contaminant Level (MCL). The MCL was not exceeded until four quarterly tests averaged about the standard of 5 pCi/L. Well #9 was taken out of service the day we received the test result leading the MCL exceedance and has remained out of service since that day.

We are in the process of finalizing a Radium Mitigation Alternatives Analysis. This analysis will help us determine the best mitigation solution to provide high quality drinking water from Well #9. Once the analysis is completed, the design and permitting process will begin. Construction could begin as soon as this fall with a completion date in late 2021 or early 2022.

Please rest assured that the drinking water provided by the Beloit Water Utility meets all drinking water standards and is safe to drink.

Water Main Breaks

There were 37 water main breaks in our system in 2019. A picture of a broken main and a typical repair are shown below.

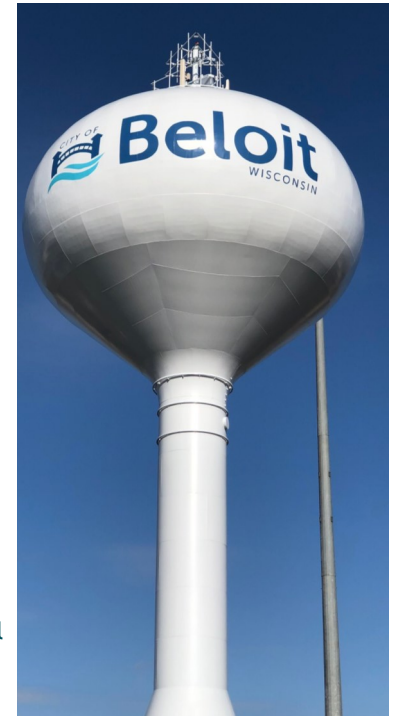


Health Information

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. 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 ask advice from your health care provider.



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

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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

¿Necesito en Espanol?
[www.beloitwi.gov/
utilities](http://www.beloitwi.gov/utilities)

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.

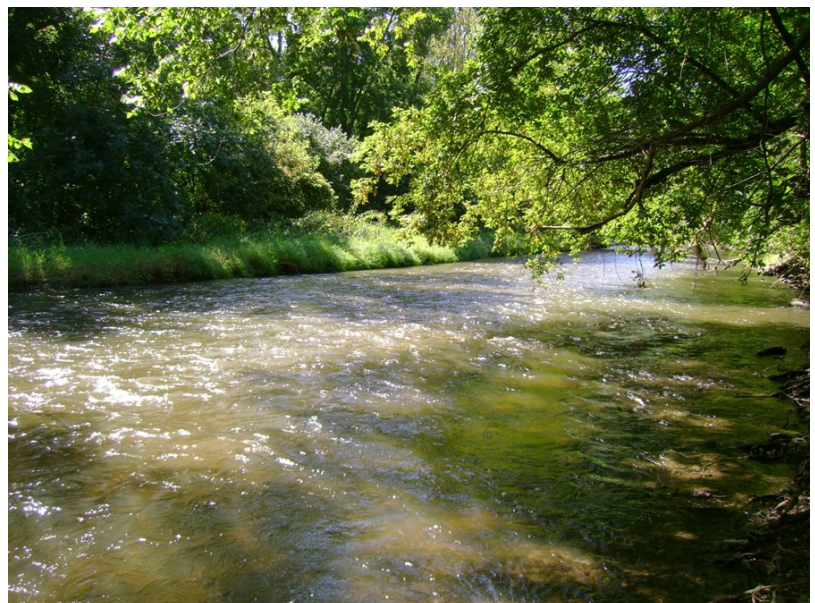
Educational Information

<u>Contaminant</u>	<u>Typical Source</u>
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 the EPA's website 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	1.7-2.0	9/18/2019	NO
TTHM	ppb	80	0	2.9-6.0	9/18/2019	NO
Inorganic Contaminants		MCL	MCLG	Range	Sample Date	Violation
Arsenic	ppb	10	0	ND-2.4	3/1/2017	NO
Barium	ppb	2000	2000	23-70	3/1/2017	NO
Chromium	ppb	100	100	ND-2.8	3/1/2017	NO
Copper	ppm	AL=1.3	1.3	0 of 31 above MCL	7/14/2017	NO
Fluoride	ppm	4	4	0.40-1.00	Everyday in 2019	NO
Lead	ppb	AL=15	0	2 of 31 above MCL	7/14/2017	NO
Mercury	ppb	2	2	ND	3/1/2017	NO
Nickel	ppb	100	100	0.7-6.3	3/1/2017	NO
Nitrate (NO3-N)	ppm	10	10	ND-4.9	Quarterly 2019	NO
<i>Nitrate Blended wells 11 & 14</i>	ppm			5.5-5.7	Quarterly 2019	NO
Nitrite (NO2-N)	ppm	1	1	ND-0.078	2/26/2014	NO
Sodium	ppm	N/A	N/A	2.4-63	3/1/2017	NO
Thallium Total	ppb	2	0.5	ND	3/1/2017	NO
Radioactive Contaminants		MCL	MCLG	Range	Sample Date	Violation
Radium, (226+228)	pCi/l	5	0	1.52-6.74	Quarterly 2019	YES
Combined Uranium	ppb	30	0	1.28-1.51	8/29/2012	NO
Gross Alpha, Excl. R & U	pCi/l	15	0	0.0-4.39	2/26/2014	NO
Gross Alpha, Incl. R & U	pCi/l	N/A	N/A	0.21-6.03	3/1/2017	NO
Synthetic Organic Contaminants including Pesticides and Herbicides		MCL	MCLG	Range	Sample Date	Violation
DI(2-Ethylehexyl) phthalate	ppb	6	0	ND	3/1/2017	NO
Unregulated Contaminants		MCL	MCLG	Range	Sample Date	Violation
Bromodichloromethane	ppb	N/A	N/A	ND	6/26/2019	NO
Bromoform	ppb	N/A	N/A	ND-0.31	6/26/2019	NO
Chloroform	ppb	N/A	N/A	ND	6/26/2019	NO
Dibromochloromethane	ppb	N/A	N/A	ND-0.49	6/26/2019	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	ppb	N/A	N/A	1.3-3.4	9/12/2018	NO
Vanadium	ppb	N/A	N/A	ND-0.74	3/1/2017	NO

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)

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 operates and maintains eight wells, four booster stations, five storage tanks and 200 miles of mains and extensions.

Well #	Depth (feet)	Gallons per Minute	Gallons per Year
4	967	500	194,000
5	1200	1500	77,587,000
8	140	4000	321,304,000
9	1130	1400	281,968,000
10	113	2400	50,265,000
11	150	2800	467,790,000
12	107	2800	739,893,000
14	1100	1400	252,562,000
Total Water in 2019			2,191,563,000

Did you know?

- The hardness of Beloit’s water is 280-400 mg/l of calcium or 16-23 grains
- The water utility treats water at each pumping station with chlorine and fluoride
- 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

Web Links:

www.beloitwi.gov/utilities
www.dnr.wi.gov/topic/DrinkingWater
www.epa.gov/ground-water-and-drinking-water

