Waukesha Water Utility

2024 Consumer Confidence Report for the Year 2023

The Waukesha Water Utility is pleased to present this annual report regarding its water supply. The Utility is committed to providing high quality water to its customers in amounts that meet their needs and protect their health at a fair price. Please read this report carefully and contact the Utility with questions at (262) 521-5272 or visit our website at www.waukesha-water.com.

In October 2023, Waukesha Water Utility switched its water source from its previous groundwater supply to Lake Michigan water. Prior to October 2023, Waukesha water met the United States Environmental Protection Agency (USEPA) standards, except Radium and Gross Alpha. The Waukesha Water Utility had treatment installed at three of its facilities to remove and reduce the radionuclide levels. We supplied water in compliance with the conditions contained in our order and stipulation from the State of Wisconsin. In June of 2016, the Great Lakes Compact unanimously approved Waukesha's application to borrow water from Lake Michigan, and then treat it and return it all to the lake via the Root River. For more information on the new water supply, please visit www.waukesha-water.com/mwq.html. Waukesha Water Utility encourages you to save water, not only to protect our resource, but also to help customers to save money. Please visit www.waukesha-water.com/consevation for ideas on how to conserve water, information on business incentives, and water conservation rebates.

Where does Waukesha water come from?

In October 2023, the Waukesha Water Utility transitioned from its groundwater source to 100% Lake Michigan water. The water is piped from the Milwaukee Water Works to Waukesha. After the water is used, approximately 100% of the volume of water will be treated and recycled back to Lake Michigan using the Root River tributary.

Prior to the transition, water was drawn from seven active sandstone wells, ranging from 1,600 – 2,266 feet deep and three active sand and gravel wells ranging from 105 - 149 feet deep.

The sandstone aquifer consists of layers of sandstone, limestone, and shale. It is covered by a thick shale layer that prevents local precipitation from recharging the aquifer in eastern Waukesha County. The recharge to the aquifer occurs in the western part of Waukesha County, near Jefferson County, where the shale layer is absent. As a result of pumping by many communities and private industries in Waukesha and Milwaukee Counties for over 50 years, the water levels have been dropping. In addition, radium occurs naturally in the sandstone aquifer at levels that exceed the EPA standard. The water quality and quantity issues are making the sandstone aquifer more expensive and complicated to use as a municipal water supply.

The sand and gravel aquifers in the southern and western edges of the City produce water with naturally low radium levels that do not require radium treatment. This saves money and avoids generating waste products from the treatment process that must be disposed of in landfills or released to the environment. Water levels in the sand and gravel wells are much higher, which saves substantial energy and pumping costs. The Utility was careful to site the sand and gravel wells in portions of the aquifer which are protected from direct surface influence by clay layers. The clay layers protect the wells from contamination and protect the local streams and wetlands from direct impacts from pumping groundwater. The water was captured immediately before it would have naturally discharged to the Fox River. After use, the water was treated and returned to the Fox River upstream from the well field. This returned the water to the local environment at essentially the same point it would have naturally flowed to, which offset the impacts of pumping and returns the environment as close to a natural state as possible.

All sample data, on the back side of this report, is prior to transitioning to Lake Michigan. The data shown below is the radium sample results after transitioning to Lake Michigan.

CCR REPORT DATA	Year 2023		POST TRANSITION NUMBERS			
Detected	MCL	MCLG	Minimum	Maximum	Date	Detected Substance
Radioactive Contaminants						
COMBINED URANIUM (ug/l)	30	0	0.263	0.281	11/8/2023	Erosion of natural deposits.
GROSS ALPHA, EXCL. R&U (pCi/l)	15	0	0	0.68	11/8/2023	Erosion of natural deposits.
GROSS ALPHA, INCL. R&U (n/a)	n/a	n/a	0	0.858	11/8/2023	Erosion of natural deposits.
GROSS BETA PARTICLE ACTIVITY (pCi/l)	n/a	n/a	Not Required	Not Required	11/8/2023	Decay of natural and man-made deposits. MCL units are in millirem/year. Calculation for compliance with MCL is not possible unless level found is greater than 50 pCi/l.
RADIUM (226 + 228) (pCi/l)	5	0	0.23	1.46	11/8/2023	Erosion of natural deposits.

Health & Educational 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 thar water poses a health risk. The Waukesha Water Utility continually monitors and tests its water quality and works with the Department of Natural Resources (DNR) and the United States Environmental Protection Agency (USEPA) to ensure that tap water in the community is safe to drink. More information about contaminants and the potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791, or at www.epa.gov.

Special Health Concerns

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. The USEPA and the Center for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline, as referenced above.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Dlaim ntawv tshaabzu nuav muaj lug tseemceeb heev nyob rua huv kws has txug cov dlej mej haus. Kuas ib tug paab txhais rua koj, los nrug ib tug kws paub lug thaam.

The Sample Data Below is Prior to Transitioning to Lake Michigan Water – All Sample Data is Prior to October 2023

CCR REPORT DATA

Substance Detected	EPA Standards MCL	MCLG	Amounts Detected Minimum	Maximum	Sample Date	Typical Source of Detected Substance
Disinfection Byproducts						
HAA5 (ppb)	60	60	1	4	Pre Oct. 2023	By-product of drinking water chlorination.
TTHM (ppb)	80	0	2.3	16.9	Pre Oct 2023	By-product of drinking water chlorination.
Inorganic Contaminants						
ARSENIC (ppb)	10	n/a	0	2	Pre Oct 2023	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
BARIUM (ppm)	2	2	0.038	0.130	Pre Oct 2023	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
FLUORIDE (ppm)	4	4	0.4	0.6	Pre Oct 2023	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
NICKEL (ppb)	100		0	3.2	Pre Oct 2023	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (NO3-N) (ppm)	10	10	0	0.30	Pre Oct 2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
SODIUM (ppm)	n/a	n/a	6.8	43	Pre Oct 2023	Erosion of natural deposits.
COPPER (ppm)	AL = 1.3	1.3	0 of 32 results were above the action level.		Pre Oct 2023	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
LEAD (ppb)	AL = 15	0	0 of 32 results were above the action level.		Pre Oct 2023	Corrosion of household plumbing systems; Erosion of natural deposits.
Radioactive Contaminants						
COMBINED URANIUM (ug/l)	30	0	0.0	0.3	Pre Oct 2023	Erosion of natural deposits.
GROSS ALPHA, EXCL. R&U (pCi/l)	15	0	1.9	20.1	Pre Oct 2023	Erosion of natural deposits.
GROSS ALPHA, INCL. R&U (n/a)	n/a	n/a	1.9	21.4	Pre Oct 2023	Erosion of natural deposits.
GROSS BETA PARTICLE ACTIVITY (pCi/l)	n/a	n/a	1.2	13.9	Pre Oct 2023	Decay of natural and man-made deposits. MCL units are in millirem/year. Calculation for compliance with MCL is not possible unless level found is greater than 50 pCi/l.
RADIUM (226 + 228) (pCi/l)	5	0	0.3	12.0	Pre Oct 2023	Erosion of natural deposits.
Secondary Maximum Contaminants	**SMCL**	**HAL**				
CHLORIDE (ppb)	250	n/a	3.3	85	Pre Oct 2023	Runoff/leaching from natural deposits, road salt, water softeners.
IRON (ppm)	0.3	n/a	0.0	0.12	Pre Oct 2023	Runoff/leaching from natural deposits, industrial wastes.
MANGANESE (ppm)	0.05	0.3	0.0	0.06	Pre Oct 2023	Leaching from natural deposits.
SULFATE (ppm)	250	n/a	30	220	Pre Oct 2023	Runoff/leaching from natural deposits, industrial wastes.
ZINC (ppm)	5	n/a	0.0	0.02	2020	Runoff/leaching from natural deposits, industrial wastes.
PFAS Contaminants	**RPHGS or**	**HAL**				
PFBS (ppt)	450000		0	0.96	2022	Drinking water is the one way 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.
PFHXS (ppt)	40		0	0.40	2022	

The results are from 2023 (or prior, if indicated above) water testing, indicated quantities may vary. The state allows monitoring for some contaminants to be less than once per year because the concentration of these contaminants does not change frequently. If you would like more details on water chemistry, contact the Waukesha Water Utility.

Health Effects for any Contaminants with MCL Violations/Action Level Exceedances	
GROSS ALPHA, EXCL. R&U	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
RADIUM (226+228)	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Additional Health Information

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Waukesha Water Utility is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Key to Table:
Action Level (AL) = *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*
Health Advisory Level (HAL) = *The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.*
Maximum Contaminant Level (MCL) = *The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.*
Maximum Contaminant Level Goal (MCLG) = *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.*
Millirems/year (mrem/year) = *A measure of radiation absorbed by the body.*
Picocuries Per Liter (pCi/L) = *A measurement of radioactivity in water.*
Parts Per Million (ppm) = *Milligrams per liter (mg/L).*
Parts Per Billion (ppb) = *Micrograms per liter (ug/L).*
Non-Detects (nd) = *Laboratory analysis indicates that the constituents are not present.*
Secondary Maximum Contaminant Levels = *for contaminants that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards.*
n/a = *Not applicable.*

The Waukesha Water Utility Commission meets at 6:00 p.m. on the third Thursday of each month at the Water Utility. Customers are welcome to participate in these meetings. For further information, you may contact the Waukesha Water Utility Office at (262) 521-5272.

Attention: If you are a landlord or a business owner, please forward this information on to your tenants and employees