



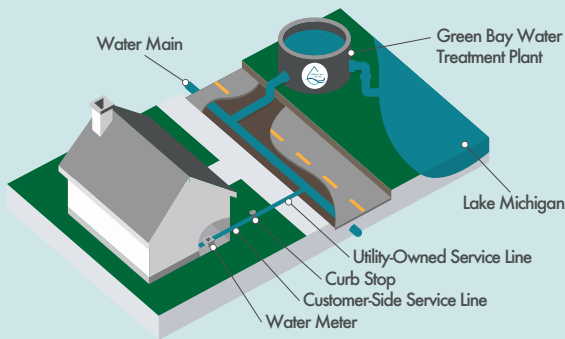
# GREEN BAY WATER UTILITY 2023 ANNUAL DRINKING WATER REPORT

Each year, the Green Bay Water Utility provides its customers with an annual Water Quality Report to let you know how the Utility's drinking water quality stacks up against federal and state drinking water standards. The report reflects some of the 10,000+ tests we conducted on the drinking water in 2023 to ensure your drinking water's quality and safety.



## WHERE DOES OUR WATER COME FROM?

The Green Bay Water Utility's main source of water is Lake Michigan. This source is known as surface water, and it is treated at a filtration facility. A Wisconsin Department of Natural Resources source water assessment summary is available. If you are interested, contact the Green Bay Water Utility at (920) 448-3480.



## 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

## WHAT MAY BE IN DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- E. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The Utility's water quality surpasses all federal and state Safe Drinking Water Standards.

The Green Bay Water Utility has performed additional water quality monitoring on contaminants that are not regulated or do not have health effect advisories associated with them yet. Please see our website at [gbwater.org](http://gbwater.org) or call (920) 448-3480 for additional information.



## UNREGULATED CONTAMINANTS

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

## TURBIDITY MONITORING

In accordance with s.NR810.29, Wisconsin Administration Code, the treated surface water is monitored for turbidity to confirm that the filtered water is less than 0.3 NTU. Turbidity is a measure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of our filtration system. During the year, the highest single entry point turbidity measurement was 0.05 NTU. The lowest monthly percentage of samples meeting the turbidity limits was 100%.

## CONTAMINANT HEALTH EFFECTS — LEAD

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

## IMPORTANT INFORMATION

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. EPA/ Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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.

The Green Bay Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in the 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 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 (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## WHAT ABOUT CRYPTOSPORIDIUM?

*Cryptosporidium* (Crypto) is a protozoan parasite found in lakes and rivers, typically when these waters contain animal or sewage waste. The Green Bay Water Utility continues to aggressively analyze for Crypto in Lake Michigan source water and treated water samples. The results indicate that no Crypto has been found. The Utility's ozonization process effectively eliminates any potential Crypto.

## DETECTED CONTAMINANTS

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants detected in your water. If a contaminant was detected last year, it will appear in the following tables. If the contaminant was not monitored last year, but was detected within the past 5 years, it will appear in the tables on the next page along with the sample date.

## SUMMARY OF WATER QUALITY DATA

INORGANIC CONTAMINANTS	DATE TESTED	UNIT	GOAL (MCLG)	MAXIMUM ALLOWED (MCL)	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Fluoride	2023	ppm	4	4	0.88	0.64 - 0.88	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer or aluminum factories.
Nickel	2022	ppb	n/a	100	1.1	nd - 1.1	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
Nitrate	2023	ppm	10	10	0.34	0.28-0.34	Runoff from fertilizer use; leaching from septic tanks, sewerage; erosion of natural deposits.
Arsenic	2021	ppb	n/a	10	1.1	nd - 1.1	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2023	ppm	2	2	0.02	0.019 - 0.02	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
INORGANIC CONTAMINANTS	DATE TESTED	UNIT	GOAL (AL)	ACTION LEVEL (AL)	DETECTED LEVEL	# OF RESULTS	SOURCE OF CONTAMINANTS
Copper	2023	ppm	1.3	AL = 1.3	0.50	0 of 50*	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	2023	ppb	0	AL = 15	2.50	0 of 50*	Corrosion of household plumbing systems; erosion of natural deposits.
RADIOACTIVE CONTAMINANTS	DATE TESTED	UNIT	GOAL (MCLG)	MAXIMUM ALLOWED (MCL)	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Gross Alpha exc. R&U (pCi/L)	2020	pCi/L	0	15	0.8	0.8	Erosion of natural deposits.
Combined Uranium	2020	ug/l	0	30	0.4	0.4	Erosion of natural deposits.
Combined Radium 226/228	2020	pCi/L	0	5	0.4	0.4	Erosion of natural deposits.
DISINFECTION BYPRODUCTS	DATE TESTED	UNIT	GOAL (MCLG)	MAXIMUM ALLOWED (MCL)	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
TTHM Site D9	2023	ppb	0	80	29.2	17.6 - 41.1	By-product of drinking water chlorination.
TTHM Site D15	2023	ppb	0	80	23.0	13.3 - 37.6	By-product of drinking water chlorination.
TTHM Site D17	2023	ppb	0	80	26.2	17.4 - 39.4	By-product of drinking water chlorination.
TTHM Site D22	2023	ppb	0	80	25.5	14.5 - 36.6	By-product of drinking water chlorination.
HAA5 Site D9	2023	ppb	60	60	8.7	5.3 - 10.5	By-product of drinking water chlorination.
HAA5 Site D15	2023	ppb	60	60	6.1	3.9 - 8.4	By-product of drinking water chlorination.
HAA5 Site D17	2023	ppb	60	60	7.4	5.1 - 9.4	By-product of drinking water chlorination.
HAA5 Site D22	2023	ppb	60	60	6.9	4.3 - 9.1	By-product of drinking water chlorination.
Bromate	2023	ppb	10	10	6.4	0.55 - 6.4	By-product of ozone disinfection.
UNREGULATED CONTAMINANTS	DATE TESTED	UNIT	GOAL (MCLG)	MAXIMUM ALLOWED (MCL)	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Sodium	2023	ppm	n/a	n/a	8.9	8.6 - 8.9	
SYNTHETIC ORGANIC CONTAMINANTS	DATE TESTED	UNIT	GOAL (MCLG)	MAXIMUM ALLOWED (MCL)	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Atrazine	2023	ppb	3	3	0.0095	0.0071 - 0.0095	Runoff from herbicide used on row crops.

\*Result above action limit.

The following tables list contaminants which were detected in your water and that have either a Health Advisory Level (HAL) or a Secondary Maximum Contaminant Level (SMCL), or both. There are no violations for detections of contaminants that exceed Health Advisory Levels, Ground Water Standards or Secondary Maximum Contaminant Levels. Secondary Maximum Contaminant Levels are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor or color. Health Advisory Levels are levels at which concentrations of the contaminant present health risks.

INORGANIC CONTAMINANTS	DATE TESTED	UNIT	SMCL	HAL	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Chloride	2023	ppm	250	n/a	16	16	Runoff/leaching from natural deposits, road salt, water softeners.
Sulfate	2023	ppm	250	n/a	22	21 - 22	Runoff/leaching from natural deposits, road salt, water softeners.
Manganese	2023	ppm	0.5	0.3	0.00053	0.00053	Leaching from natural deposits.
Zinc	2023	ppm	5.0	n/a	0.0022	0.0022	Corrosion of household plumbing systems; erosion of natural deposits.
pH	2023	--	6.5 - 8.5	n/a	7.8	7.6 - 7.8	Runoff and leaching from natural deposits; seawater influence.
Total Dissolved Solids (TDS)	2023	ppm	500	n/a	160	140 - 160	Runoff and leaching from natural deposits; seawater influence.
Silver	2023	ppm	0.1	0.05	0.0013	0.0013	Runoff from industrial waste.

## PFAS CONTAMINANTS WITH A RECOMMENDED HEALTH ADVISORY LEVEL

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that have been used in industry and consumer products worldwide since the 1950s. The following table lists PFAS contaminants detected in your water and has a recommended Health Advisory Level (HAL). There are no violations for detection of contaminants that exceed recommended Health Advisory Levels. The Recommended Health Advisory Levels are levels at which contaminant concentrations present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

CONTAMINANTS	DATE TESTED	UNIT	RECOMMENDED HAL	DETECTED LEVEL	RANGE OF VALUES TESTED	SOURCE OF CONTAMINANTS
Perfluorohexanoic acid (PFHxA)	2023	ppt	150,000	1.34	1.1 - 1.90	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their source. PFAS can get in groundwater from places that make or use PFAS and releases from certain types of waste in landfills.
Perfluorononanoic acid (PFNA)	2023	ppt	30	0.57	nd - 0.57	
Perfluorohexanesulfonic acid (PFHxS)	2023	ppt	40	0.69	0.56 - 0.99	
Perfluorooctanoic acid (PFOA)	2023	ppt	20	2.19	1.70 - 2.70	
Perfluorooctanesulfonic acid (PFOS)	2023	ppt	20	2.13	1.60 - 2.50	
Perfluorobutanoic acid (PFBA)	2023	ppt	10,000	1.80	1.70 - 1.90	
Perfluorooctane sulfonamide (FOSA)	2023	ppt	20	6.55	6.5 - 6.6	
Perfluorobutanesulfonic acid (PFBS)	2023	ppt	450,000	0.32	0.32 - 0.57	
Perfluoropentanoic acid (PFPeA)	2023	ppt	n/a	1.50	1.40 - 1.60	
Perfluoroheptanoic acid (PFHpA)	2023	ppt	n/a	1.05	0.86 - 1.50	
Perfluoropentanesulfonic acid (PFPeS)	2023	ppt	n/a	0.55	ND - 0.55	

**Note:** DHS recommends a combined enforcement standard of 20 ng/L for PFOSA, NET-FOSE, NET-FOSA, NetFOSAA, PFOS, and PFOA. The recommended limit is 20 ppt for any one of these six compounds or the combined total of all 6



## DATA TABLE KEY: UNIT DESCRIPTIONS

**AL:** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**HAL:** Health Advisory Level: The concentration of a contaminant which, if exceeded, poses a risk and may require a system to post a public notice.

**MCL:** Maximum contaminant level: the highest level of a contaminant that is allowed in drinking water. MCLs are 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. MCLGs allow for a margin of safety.

**n/a:** not applicable

**nd:** not detected

**NTU:** Nephelometric Turbidity Units

**ppb:** parts per billion, or micrograms per liter (ug/l)

**ppm:** parts per million, or milligrams per liter (mg/l)

**ppt:** part per trillion, or nanograms per liter (ng/l)

**pCi/L:** picocuries per liter (a measure of radioactivity)

**SMCL:** Secondary drinking water standards or Secondary Maximum Contaminant Levels for contaminants that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards.



### GREEN BAY WATER UTILITY IS A MEMBER OF:

**American Water Works Association  
Association of Metropolitan Water Agencies  
Public Water Systems ID #40503562**

Regular Green Bay Commission meetings occur on the second Monday of every month at 8:30 a.m. at the Green Bay Water Utility office, 631 S. Adams St., P.O. Box 1210, Green Bay, WI 54305-1210.

If you would like to know more about the information contained in this report, please contact Russ Hardwick at (920) 845-2031.