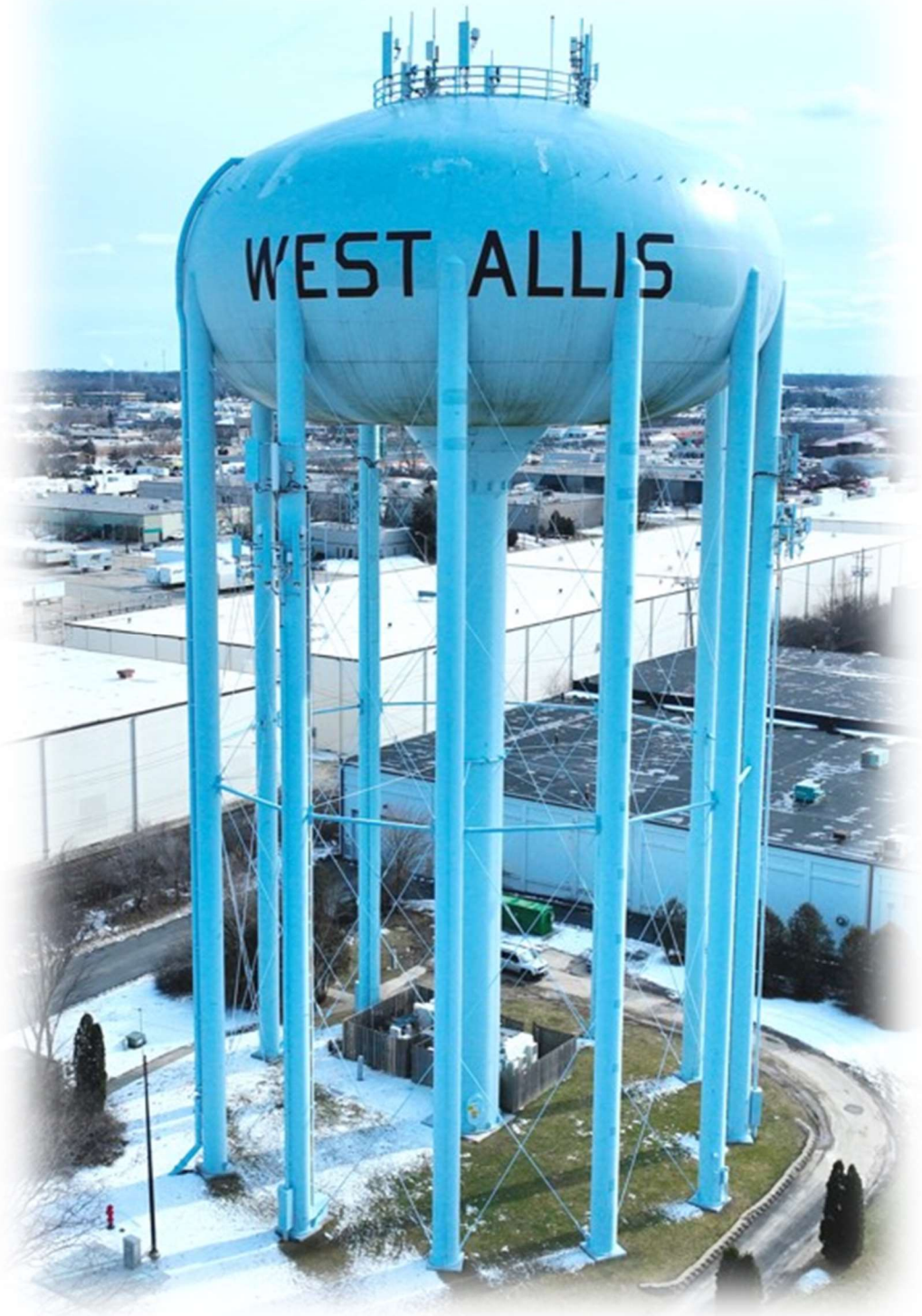




2024 WATER QUALITY REPORT

West Allis Water Utility



2024 Consumer Confidence Report

West Allis Water Utility PWS ID: 24105950

Introduction

The West Allis Water Utility purchases water from Milwaukee Water Works. Our water is supplied to us by Milwaukee's Water Treatment Plants from two (2) metered supply points in West Allis.

During 2024, the West Allis Water Utility pumped an average of 5 million gallons of water per day for residential, commercial and industrial use. Also, the Utility maintains 215 miles of water main, 2,600 fire hydrants, 6,000 distribution valves and over 19,000 water meters in accordance with regulatory standards established by the United States Environmental Protection Agency, Wisconsin Department of Natural Resources, and the Public Service Commission of Wisconsin.

We are pleased to present this information to our customers. It will explain the source of our water, what has been detected in our water, and how it compares to the standards set by the US EPA and the Wisconsin DNR. The West Allis Water Utility is committed to protecting the health of the public served by our water system.

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.

Water System Information

If you would like to know more about the information contained in this report, please contact the Water Systems Manager, Karyn Rittenhouse at (414) 302-8830.

Participate in decisions affecting your water quality

Attend Common Council meetings. The Common Council's regularly scheduled meeting dates are generally the first and third Tuesday of each month, except for months when there is an election or conflicting event and in summer when they meet once a month. There is also only one meeting in December. Please note that the Common Council meeting schedule is subject to change annually. For the most current schedule, visit the agendas and minutes section on our website at: <https://westalliswi.legistar.com/Calendar.aspx>

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.

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 from their health care providers about drinking water. EPA/CDC 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.

Water Source

The City of West Allis Water Utility purchases water from Milwaukee Water Works. The source of the drinking water is Lake Michigan. For more information, read the DNR Source Water Assessment for Milwaukee at:

<http://city.milwaukee.gov/water/WaterQuality>

Educational Information

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:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- 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 EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Definitions

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
HA and HAL	HA: Health Advisory. An estimate of acceptable drinking water levels for a chemical substance based on health effects information. HAL: Health Advisory Level is a concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice. Health Advisories are determined by US EPA.
HI	HI: Hazard Index: A Hazard Index is used to assess the potential health impacts associated with mixtures of contaminants. Hazard Index guidance for a class of contaminants or mixture of contaminants may be determined by the US EPA or Wisconsin Department of Health Services. If a Health Index is exceeded a system may be required to post a public notice.
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs 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.
MFL	million fibers per liter
MRDL	Maximum residual disinfectant level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum residual disinfectant level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
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 (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
PHGS	PHGS: Public Health Groundwater Standards are found in NR 140 Groundwater Quality. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.
RPHGS	RPHGS: Recommended Public Health Groundwater Standards: Groundwater standards proposed by the Wisconsin Department of Health Services. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.
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.
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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 which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
HAA5 (ppb)	D-38	60	60	3	2 - 2		No	By-product of drinking water chlorination
TTHM (ppb)	D-38	80	0	12.6	6.6 - 19.8		No	By-product of drinking water chlorination
HAA5 (ppb)	D-6	60	60	3	2 - 2		No	By-product of drinking water chlorination
TTHM (ppb)	D-6	80	0	12.4	5.7 - 20.3		No	By-product of drinking water chlorination
HAA5 (ppb)	D-69	60	60	3	1 - 3		No	By-product of drinking water chlorination
TTHM (ppb)	D-69	80	0	11.6	7.1 - 17.2		No	By-product of drinking water chlorination
HAA5 (ppb)	EPDS-1	60	60	4	3 - 4		No	By-product of drinking water chlorination
TTHM (ppb)	EPDS-1	80	0	13.1	5.9 - 24.7		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	Range	# of Results	Sample Date (if prior to 2024)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.0390	0.0000 - 0.0660	0 of 30 results above action level.	6/8/2023	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	2.40	0.00 - 12.00	0 of 30 results above action level.	6/8/2023	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants with a Public Health Groundwater Standard, Health Advisory Level, or a Secondary Maximum Contaminant Level

The following table lists contaminants which were detected in your water and that have either a Public Health Groundwater Standard (PHGS), 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, Public Health Groundwater 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. Public Health Groundwater Standards and Health Advisory Levels are levels at which concentrations of the contaminant present a health risk.

Contaminant (units)	Site	SMCL (ppm)	PHGS or HAL (ppm)	Level Found	Range	Sample Date (if prior to 2024)	Typical Source of Contaminant
ALUMINUM (ppm)		0.05	0.2	0.10	0.10	7/22/2020	Runoff/leaching from natural deposits
CHLORIDE (ppm)		250		15.00	15.00	7/22/2020	Runoff/leaching from natural deposits, road salt, water softeners
IRON (ppm)		0.3		0.01	0.01	7/22/2020	Runoff/leaching from natural deposits, industrial wastes
SULFATE (ppm)		250		26.00	26.00	7/22/2020	Runoff/leaching from natural deposits, industrial wastes

Fifth Unregulated Contaminants Monitoring Rule (UCMR-5)

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.

The current cycle of UCMR-5 includes 29 different types of PFAS compounds, plus lithium. The EPA established reporting limits for each contaminant that all labs were required to use to ensure the data would be reliable and comparable regardless of which lab analyzed the samples. We sent all samples to an external, accredited lab, and all results were below the EPA reporting limits. This means that if the contaminant was present in the water, it was too low of a concentration to reliably measure by EPA's standards.

Contaminant	Result (ppb)	Typical Source
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.005	Water proofing, fire fighting foam
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.002	Water proofing, fire fighting foam
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	<0.003	Water proofing, fire fighting foam
hexafluoropropylene oxide dimer acid (HFPO DA)	<0.005	Water proofing, fire fighting foam
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.02	Water proofing, fire fighting foam
perfluorobutanoic acid (PFBA)	<0.005	Water proofing, fire fighting foam
perfluorobutanesulfonic acid (PFBS)	<0.003	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	<0.005	Water proofing, fire fighting foam
perfluorodecanoic acid (PFDA)	<0.003	Water proofing, fire fighting foam
perfluorododecanoic acid (PFDoA)	<0.003	Water proofing, fire fighting foam
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	<0.003	Water proofing, fire fighting foam
perfluoroheptanesulfonic acid (PFHpS)	<0.003	Water proofing, fire fighting foam
perfluoroheptanoic acid (PFHpA)	<0.003	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	<0.003	Water proofing, fire fighting foam
perfluorohexanesulfonic acid (PFHxS)	<0.003	Water proofing, fire fighting foam
perfluorohexanoic acid (PFHxA)	<0.003	Water proofing, fire fighting foam
perfluoro-3-methoxypropanoic acid (PFMPA)	<0.004	Water proofing, fire fighting foam
perfluoro-4-methoxybutanoic acid (PFMBA)	<0.003	Water proofing, fire fighting foam
perfluorononanoic acid (PFNA)	<0.004	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	<0.005	Water proofing, fire fighting foam
perfluorooctanesulfonic acid (PFOS)	<0.004	Water proofing, fire fighting foam
perfluorooctanoic acid (PFOA)	<0.004	Water proofing, fire fighting foam
perfluoropentanoic acid (PFPeA)	<0.003	Water proofing, fire fighting foam
perfluoropentanesulfonic acid (PFPeS)	<0.004	Water proofing, fire fighting foam
perfluoroundecanoic acid (PFUnA)	<0.002	Water proofing, fire fighting foam
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.005	Water proofing, fire fighting foam
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.006	Water proofing, fire fighting foam
perfluorotetradecanoic acid (PFTA)	<0.008	Water proofing, fire fighting foam
perfluorotridecanoic acid (PFTrDA)	<0.007	Water proofing, fire fighting foam
Lithium	<MRL	Naturally occurring element

Health effects for any contaminants with MCL violations/Action Level Exceedances/SMCL exceedances/PHGS or HAL exceedances

Contaminant	Health Effects
ALUMINUM	Waters containing aluminum in quantities above the SMCL are not hazardous to health but may be objectionable for taste, odor, or color.

Additional Health Information

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. West Allis Waterworks is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact West Allis Waterworks (Dina Arendt at (262) 242-8441). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

Additional Information on Service Line Materials

We are required to develop an initial inventory of service lines connected to our distribution system by October 16, 2024 and to make the inventory publicly accessible. You can access the service line inventory here: www.westalliswi.gov/lead

Purchased Water

Our water system purchases water from Milwaukee Water Works. In addition to the detected contaminants listed above, these are the results from Milwaukee Water Works.

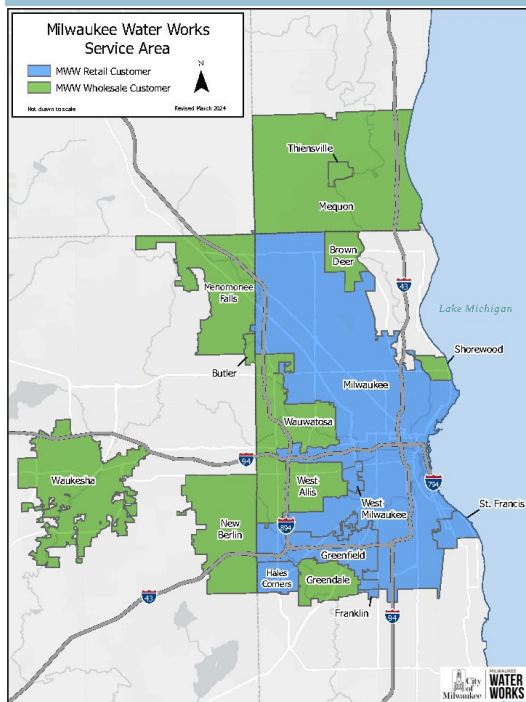
2024 Annual Water Quality Report

2024 Informe Anual de Calidad del Agua

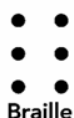
The U.S. Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (DNR) require drinking water utilities to provide an Annual Water Quality Report (otherwise known as a Consumer Confidence Report) to help consumers understand where their drinking water comes from, so they can make informed decisions about their health and protection of the environment. In this report, you will find:

- Information about the source of your drinking water
- The treatment process that ensures the highest quality water
- Results of 2024 water quality testing and compliance with water quality regulations and standards
- 2023 Lead and Copper Rule results
- Additional educational information and public health announcements

Visit [Milwaukee.gov/water](https://www.milwaukee.gov/water) for more information.



This material is available in alternative formats for individuals with disabilities upon request. Please contact the City of Milwaukee ADA Coordinator via phone at (414) 286-3475 or email ADACoordinator@milwaukee.gov. Please provide a 72-hour advance notice for large print and seven days for Braille documents.



Large
Print

Milwaukee Water Works (MWW)

The City of Milwaukee-owned public utility provides safe drinking water to approximately 923,000 people in Milwaukee and 16 suburban communities:

Wholesale Customers: Brown Deer, Butler, Greendale, Menomonee Falls, Mequon, New Berlin, Shorewood, Thiensville, Waukesha, Wauwatosa, and West Allis.

Retail Customers: Greenfield, Hales Corners, a portion of Franklin, Milwaukee, St. Francis, and West Milwaukee.

Participate in decisions regarding your water

Attend City of Milwaukee Common Council Public Works Committee meetings, which occur regularly each month in Milwaukee City Hall, Room 301B, 200 East Wells Street, Milwaukee, WI 53202. Public comment is welcome on any item. You may also attend City of Milwaukee Common Council meetings, which meet in the Milwaukee City Hall, Third Floor, Common Council Chambers, 200 East Wells Street, Milwaukee, WI 53202. Common Council meeting dates vary. Please contact the City Clerk for the schedule at (414) 286-2221, or visit [Milwaukee.gov/cityclerk/ PublicRecords/Agendas.htm](https://www.milwaukee.gov/cityclerk/PublicRecords/Agendas.htm).



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Important Information

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Información Importante

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien.

Lug tseem ceeb rua cov siv dlej kws has lug Moob

Ntawm nuav yog cov lug tseem ceeb qha txug kev haus dlej nyob nroog Milwaukee. Yog mej nyeeem tsi tau cov lug nuav, thov lwv tug txhais rua mej.

Source Water and Types of Contaminants

Milwaukee's drinking water comes from Lake Michigan, a surface water source. The most recent DNR Source Water Assessment for Milwaukee is available online under "Resources" at [Milwaukee.gov/WaterQuality](https://www.milwaukee.gov/WaterQuality). 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, or substances, that may be present in source water include:

Microbial contaminants, such as viruses, protozoa, and bacteria, may come from leaky sewer pipes, septic systems, agricultural livestock operations, and wildlife.

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.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants.

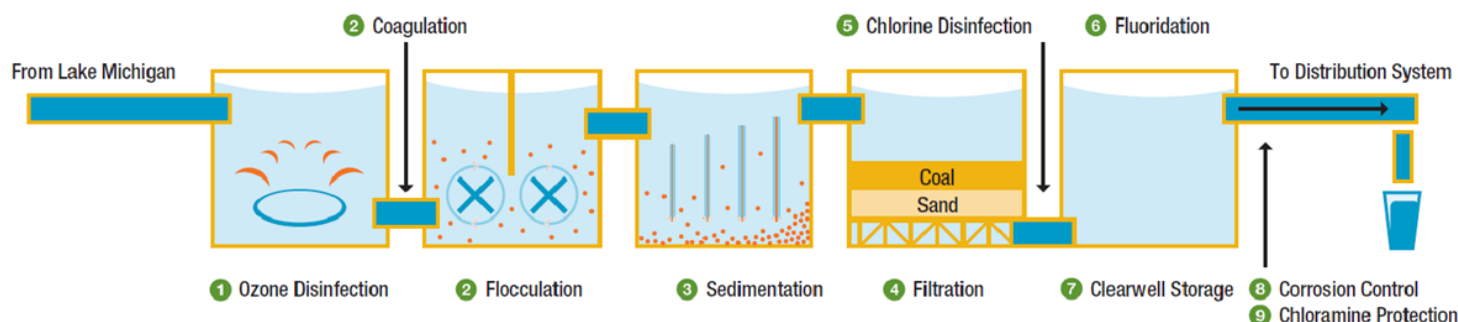
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

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 EPA's safe drinking water hotline (800-426-4791) or at: www.epa.gov

In order to ensure that tap water is safe, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health. MWW maintains a nationally recognized water monitoring program to assure all treated water meets or exceeds local, state, and federal regulations.

Milwaukee Water Works Drinking Water Treatment Process



(1) Ozone disinfection: Ozone gas is bubbled through the incoming lake water. Ozone destroys disease-causing microorganisms including *Giardia* and *Cryptosporidium*, controls taste and odor, and reduces the formation of chlorinated disinfection byproducts.

(2) Coagulation and Flocculation: Aluminum sulfate is added to the water to neutralize the charge on microscopic particles. The water is then gently mixed to encourage suspended particles to stick together to form "floc."

(3) Sedimentation: Sedimentation is the process in which floc settles out and is removed from the water.

(4) Biologically Active Filtration: The water is slowly filtered through 24" of anthracite coal and 12" of crushed sand to remove very small particles.

(5) Chlorine Disinfection: After filtration, chlorine is added as a secondary disinfectant to provide extra protection from potentially harmful microorganisms.

(6) Fluoridation: Fluoride, when administered at low levels, is proven to help prevent tooth decay.

(7) Clearwell Storage: Treated water is stored in deep underground tanks and pumped as needed through the distribution system.

(8) Corrosion Control: A food-grade phosphorus compound is added to help control corrosion of pipes. This helps prevent lead and copper from leaching from plumbing into water.

(9) Chloramine Protection: Ammonia changes the chlorine to chloramine, a disinfectant that maintains bacteriological protection in the distribution system.

Reading the Water Quality Tables

The following tables show regulated and unregulated contaminants and substances detected in Milwaukee’s drinking water in 2024. It also includes all substances tested for in the mandatory EPA monitoring program, most recently the Fifth Unregulated Contaminant Monitoring Rule (UCMR-5). The contaminant test results demonstrate the water meets or exceeds drinking water standards for health and safety. The tables contain the name of each substance, the highest level allowed by regulation (Maximum Contaminant Level), the ideal level for public health (Maximum Contaminant Level Goal), the amount detected, and the usual sources of such contamination. The presence of a substance in drinking water does not necessarily indicate the water poses a health risk. Certain quantities of some substances are essential for good health, but excessive quantities can be hazardous.

Definitions	
Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk.
Health Advisory (HA) and Health Advisory Level (HAL)	An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a health advisory is not a legally enforceable federal standard, but serves as technical guidance to assist federal, state, and local officials.
Maximum contaminant level (MCL)	The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs 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. MCLGs allow for a margin of safety.
Maximum residual disinfectant level (MRDL)	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
Maximum residual disinfectant level goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Recommended Public Health Groundwater Standard (RPHGS)	Groundwater standards proposed by the Wisconsin Department of Health Services. The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.
Secondary Maximum Contaminant Levels (SMCL)	Secondary drinking water standards that affect taste, odor, or appearance of the drinking water. The SMCLs do not represent health standards.
Treatment technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Turbidity	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms may include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Unit abbreviations	
<	“less than” or not detected
N/A	not applicable
NR	not regulated
NTU	nephelometric turbidity unit (a unit to measure turbidity)
ppb	parts per billion (microgram per liter)
ppm	parts per million (milligram per liter)
ppt	parts per trillion (nanogram per liter)
pCi/L	picocuries per liter: a measure of radioactivity
RAA	running annual average: the average of four quarterly samples collected in one year

Primary Drinking Water Standards

Your water was tested for many contaminants last year. MWW is allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not required to be monitored last year, but was detected within the last 5 years of regulatory sampling, it will appear in the tables below along with the sample date. Additional, voluntary results are available at milwaukee.gov/waterquality. Results are from the water leaving the treatment plant, unless otherwise indicated.

Primary Contaminant or Substance	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Average Detected	Range or Highest Detected	Date (if before 2024)	Meets Standard	Typical Source of Substance
Antimony (ppb)	6	6	0.17	0.16 - 0.18	8/7/2023	Yes	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Atrazine (ppb)	3	3	0.02	0.02 - 0.02	Aug 2023	Yes	Runoff from herbicide used on row crops
Barium (ppm)	2	2	0.019	0.019	5/20/2020	Yes	Drilling waste discharge; metal refineries
Bromate (ppb)	0	10 (RAA)	2.2	0.0 - 6.5		Yes	Byproduct of drinking water disinfection
Chlorine, Total (ppm)	4	4 (MRDL)	1.61	1.41 - 1.95		Yes	Disinfection of drinking water
Chlorite (ppm)	0.8	1	0.002	0—0.007		Yes	Byproduct of drinking water disinfection
Chromium, Total (ppb)	100	100	0.8	0.69 - 0.90	8/9/2023	Yes	Natural deposits and manufacturing
Fluoride (ppm)*	4	4	0.64	0.39 - 0.72		Yes	Erosion of natural deposits; water additive for dental health; aluminum factories
Heterotrophic Plate Count (HPC)	N/A	TT	Met Standard	Met Standard		Yes	Naturally present in the environment
Nitrate (ppm)	10	10	0.32	0.31 - 0.33		Yes	Runoff from fertilizer; leeching from septic tanks sewage; erosion of natural deposits
Total Haloacetic Acids 5 (ppb)*	N/A	60	1.2	0.0 - 3.8		Yes	Byproduct of drinking water disinfection
Trihalomethanes, Total (ppb)*	N/A	80	8.9	5.2 - 13.7		Yes	Byproduct of drinking water disinfection

*Measured at customer taps

Turbidity Monitoring

In accordance with s. NR 810.29, Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm that the filtered water is less than 0.3NTU in 95% of samples. Turbidity is a measure of the cloudiness of water. MWW monitors 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 0.12 NTU. All of MWW samples in 2024 met the turbidity limits.

Did you know?

Milwaukee Water Works is part of the Partnership for Safe Water - Distribution System Optimization program. This is a voluntary program that pushes utilities to continuously improve the way they manage their system to balance the benefits of disinfection with carefully limiting disinfection by-products. The utility was awarded the Directors Award for the efforts and continues the reporting and goal setting in order to provide our community with the best water possible.



PFAS (Per- and Polyfluoroalkyl Substances)

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 which were detected in your water and that have a Recommended Public Health Groundwater Standard (RPHGS) or Health Advisory Level (HAL). There are no violations for detections of contaminants that exceed the RPHGS or HAL. The RPHGS are levels at which concentrations of the contaminant present a health risk and are based on guidance provided by the Wisconsin Department of Health Services.

Note: The recommended health-based levels in the table below were in effect in 2024. These levels were revised by WDHS in 2025. They can be found here dhs.wisconsin.gov/water/gws.htm.

Drinking water is one way 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.

PFAS Compound	RPHGS or HAL (ppt)	Current WI MCL (ppt)	Average Detected	Range or Highest Detected	Date (if before 2024)
Perfluorobutanoic acid (PFBA) (ppt)	10,000	NR	1.90	1.80 - 1.90	
Perfluorooctanesulfonic acid (PFOS) (ppt)	20	70	2.15	2.10 - 2.20	2/20/2023
Perfluorooctanoic acid (PFOA) (ppt)	20	NR	2.15	2.10 - 2.20	2/20/2023
PFOS + PFOA (ppt)	20	70	4.40	4.20 - 4.60	2/20/2023

Secondary Maximum Contaminant Levels (SMCL) are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor, or color.

Secondary Drinking Water Standards

The following table lists contaminants which were detected in your water and that have a Secondary Maximum Contaminant Level (SMCL). There are no violations for detections of contaminants that exceed these guidelines. SMCLs are levels that do not present health concerns but may pose aesthetic problems such as objectionable taste, odor, or color.

In addition to the regulatory sampling listed below from previous years, these contaminants were also tested in 2024 on a voluntary basis. Results of voluntary testing are available at milwaukee.gov/waterquality under 'Resources.'



Contaminant or Substance	SMCL	Average	Range or Highest	Date (if before 2024)	Typical Source of Substance
Aluminum (ppm)	0.05—0.20	0.05	0.05	8/24/2020	Water treatment additive; natural deposits
Chloride (ppm)	250	15	15	8/24/2020	Natural deposits and road salts
Sodium (ppm)	250	10.2	9.9—10.4		Natural deposits and road salts
Sulfate (ppm)	250	28.0	26 - 28	8/24/2020	Natural deposits
Total Dissolved Solids (ppm)	500	174	171-176		Dissolved minerals

Lead and Copper

In 2023, in compliance with the US EPA and Wisconsin DNR, MWW completed Lead and Copper Rule (LCR) testing. All samples were collected at the customers’ taps from properties with lead service lines. In order to remain in compliance with EPA regulations, 90th percentile levels must be below 15 ppb for lead and 1.3 ppm for copper. The 90th percentile is the level at which 90% of all results are at or below that concentration. There were two homes that tested above 15 ppb lead. Those residents were contacted immediately for follow up.

Lead and Copper (2023)	Action Level	90th percentile	Highest Detected	Sites Exceeding Action Level
Copper (ppm)	1.3	0.061	0.108	0
Lead (ppb)	15	5.3	20.3	2

Lead and Copper Public Safety

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. Learn more about lead in water:

milwaukee.gov/LeadPipes

Tips to Lower your Lead Exposure

- Identify and remove lead materials in your home plumbing.
- Filter drinking water using a filter certified to NSF/ANSI 53 standards. Follow the filter instructions to use properly. Filtered water is recommended for children under 6 and those who are pregnant or breast feeding.
- If your water has been unused for 6 or more hours, flush the tap for several minutes before using water for drinking, cooking, or making baby formula. If you have a lead service line you may need to flush your pipes for a longer period.
- Use only cold water for drinking, cooking, and making baby formula. Boiling water does NOT remove lead.
- Remove and clean faucet screens (aerators) regularly.

In 1996, MWW began adding a food grade ortho-phosphate to the finished water to reduce lead and copper leaching from pipes into the water. This is called corrosion control treatment (CCT). By the end of 1997, the treatment had been fully implemented and the lead concentrations dropped below the EPA action level during the next cycle of LCR compliance sampling. After a three-year study to optimize the CCT program, the DNR determined in 2022 that MWW’s water quality characteristics are still ideal for reducing lead in water and no changes were requested.

MWW is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 3 minutes before using water for drinking or cooking. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

Additional Information on Service Line Materials

MWW was required to develop an initial inventory of service lines connected to our distribution system by October 16, 2024 and to make the inventory publicly accessible. You can access the service line inventory here: milwaukee.gov/CheckAddress

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 or at www.epa.gov/safewater/lead.

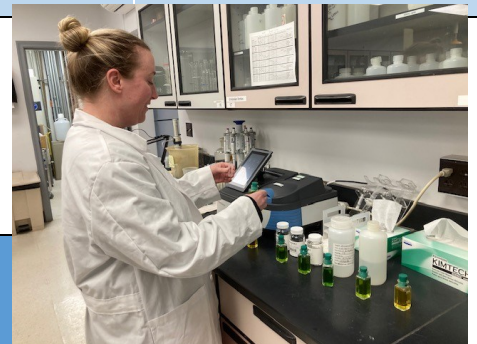
Radionuclides

MWW is on a reduced monitoring schedule for radioactive contaminants due to results being below half of the maximum contaminant level (MCL). Next scheduled monitoring for the utility will be 2026.

Radionuclide Contaminant	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Level Detected	Range or Highest Detected	Sample Date (if prior to 2022)	Typical Source of Contaminant
Gross Beta Particle Activity (pCi/L)	0	50	1.6	-1.7-1.6	3/24/2020	Decay of natural and man-made deposits.
Gross Alpha, Excl. R & U (pCi/L)	0	15	0.7	0.5 - 0.7	3/24/2020	Erosion of natural deposits
Radium, (226 + 228) (pCi/L)	0	5	0.9	0.7 - 0.9	3/24/2020	Erosion of natural deposits
Gross Alpha, Incl. R & U (pCi/L)	0	15	0.9	0.7 - 0.9	3/24/2020	Erosion of natural deposits
Combined Uranium (ug/L)	0	30	0.3	0.3	3/24/2020	Erosion of natural deposits

Other Substances

As the largest water utility in Wisconsin, MWW goes above and beyond the required testing and provides the additional results to customers.



Contaminant or Substance	Average	Range or Highest Detected	Typical Source
Ammonia (ppm)	0.31	0.18 - 0.38	Disinfection with chloramines; wastes; fertilizers and natural processes
Azithromycin (ppb)	0.02	0.00 - 0.02	Pharmaceutical
Boron (ppb)	23.7	23.5 - 24.1	Naturally occurring, borax mining and refining, boric acid manufacturing
Bromide (ppb)	19.6	13.0 - 24.1	Naturally occurring
Bromochloroacetic acid (ppb)	0.45	0.00 - 1.40	Byproduct of drinking water disinfection
Bromochloroacetonitrile (ppb)	0.17	0.00 - 0.50	Byproduct of drinking water disinfection
Bromodichloroacetic acid (ppb)	0.51	0.00 - 2.10	Byproduct of drinking water disinfection
Calcium (ppm)	34.6	34.4 - 34.9	Naturally occurring
Chlorate (ppb)	156	85 - 245	Byproduct of drinking water disinfection
Chromium, Hexavalent (ppb)	0.15	0.13 - 0.17	Manufacturing and weathering of natural deposits
Dibromoacetonitrile (ppb)	0.19	0.00 - 0.73	Byproduct of drinking water disinfection
Dichloroacetonitrile (ppb)	0.15	0.00 - 0.52	Byproduct of drinking water disinfection
Erythromycin (ppb)	0.01	0.00 - 0.02	Pharmaceutical
Lithium (ppb)	2.1	2.1 - 2.2	Byproduct of drinking water disinfection
Magnesium (ppm)	12.1	11.9 - 12.3	Naturally occurring
Nonanal (ppb)	1.4	0.00 - 11	Naturally occurring and scent additive
Perchlorate (ppb)	0.08	0.00 - 0.16	Naturally occurring and an impurity in hypochlorite solutions used for drinking water treatment
o-Phosphate as PO ₄ (ppm)*	1.76	1.26 - 2.75	Corrosion control treatment added to coat pipes and prevent lead leaching
Potassium (ppm)	1.5	1.5	Byproduct of drinking water disinfection
Rubidium (ppb)	1.15	1.1 - 1.2	Naturally occurring
Silica (ppm)	2.2	2.1 - 2.2	Naturally occurring
Strontium (ppb)	116	115 - 117	Natural deposits
Total Organic Carbon (ppm)	1.44	1.34 - 1.56	Naturally present in the environment

*Measured at customer taps

Fifth Unregulated Contaminants Monitoring Rule (UCMR-5) (2023)

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

The current cycle of UCMR-5 includes 29 different types of PFAS compounds, plus lithium. The EPA established required reporting limits for each contaminant that all labs were required to use to ensure the data would be reliable and comparable regardless of which lab analyzed the samples. MWW sent all samples to an external, accredited lab, and all results were below the EPA reporting limits. This means that if the contaminant was present in the water, it was too low of a concentration to reliably measure by EPA's standards.

Contaminant	Result (ppb)	Typical Source
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	<0.005	Water proofing, fire fighting foam
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.002	Water proofing, fire fighting foam
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	<0.003	Water proofing, fire fighting foam
hexafluoropropylene oxide dimer acid (HFPO DA)	<0.005	Water proofing, fire fighting foam
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.02	Water proofing, fire fighting foam
perfluorobutanoic acid (PFBA)	<0.005	Water proofing, fire fighting foam
perfluorobutanesulfonic acid (PFBS)	<0.003	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	<0.005	Water proofing, fire fighting foam
perfluorodecanoic acid (PFDA)	<0.003	Water proofing, fire fighting foam
perfluorododecanoic acid (PFDoA)	<0.003	Water proofing, fire fighting foam
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	<0.003	Water proofing, fire fighting foam
perfluoroheptanesulfonic acid (PFHpS)	<0.003	Water proofing, fire fighting foam
perfluoroheptanoic acid (PFHpA)	<0.003	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	<0.003	Water proofing, fire fighting foam
perfluorohexanesulfonic acid (PFHxS)	<0.003	Water proofing, fire fighting foam
perfluorohexanoic acid (PFHxA)	<0.003	Water proofing, fire fighting foam
perfluoro-3-methoxypropanoic acid (PFMPA)	<0.004	Water proofing, fire fighting foam
perfluoro-4-methoxybutanoic acid (PFMBA)	<0.003	Water proofing, fire fighting foam
perfluorononanoic acid (PFNA)	<0.004	Water proofing, fire fighting foam
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	<0.005	Water proofing, fire fighting foam
perfluorooctanesulfonic acid (PFOS)	<0.004	Water proofing, fire fighting foam
perfluorooctanoic acid (PFOA)	<0.004	Water proofing, fire fighting foam
perfluoropentanoic acid (PFPeA)	<0.003	Water proofing, fire fighting foam
perfluoropentanesulfonic acid (PFPeS)	<0.004	Water proofing, fire fighting foam
perfluoroundecanoic acid (PFUnA)	<0.002	Water proofing, fire fighting foam
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.0048	Water proofing, fire fighting foam
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.0057	Water proofing, fire fighting foam
perfluorotetradecanoic acid (PFTA)	<0.0076	Water proofing, fire fighting foam
perfluorotridecanoic acid (PFTrDA)	<0.0067	Water proofing, fire fighting foam
Lithium	<9.0	Naturally occurring

Milwaukee Water Works maintains an extensive, nationally recognized water quality monitoring program. The utility tests for more than 500 substances to ensure safe water, increase understanding of how substances affect public health, and meet current and future regulations. This report contains substances that were detected in treated water in 2024. A full list of undetected substances and voluntary sampling can be found under "Resources" at [Milwaukee.gov/WaterQuality](https://www.milwaukee.gov/WaterQuality).



Cryptosporidium

Cryptosporidium is a microscopic protozoan that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. It comes from human and animal wastes washing into lakes, rivers, and streams. The risk of *Cryptosporidium* infection from drinking water has been reduced to extremely low levels by an effective treatment combination.

MWW has remained committed to testing Lake Michigan source water and treated water for *Cryptosporidium* since 1993, even as many utilities and laboratories have discontinued this analysis. No *Cryptosporidium*, or *Giardia* were detected in any of the source water or finished drinking water samples collected in 2024.



MWW provides a brochure based on EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by

Cryptosporidium. Obtain a copy from our Customer Service Center, (414) 286-2830, or at [Milwaukee.gov/WaterQuality](https://www.milwaukee.gov/WaterQuality) and scroll down to Resource Links, choose "Information for persons with weakened immune systems."

Notice to Parents of Infants Six Months of Age or Younger

According to the CDC, the proper amount of fluoride, from infancy and at all ages throughout life, helps prevent and control tooth decay (cavities). Therefore, MWW, following public health recommendations, maintains a level of fluoride in our drinking water that is both safe and effective. The following is an advisory regarding fluoride and young infants:

The American Academy of Pediatrics recommends exclusive breastfeeding for the first six months of a child's life, followed by continued breastfeeding as complementary foods are introduced, for optimal short- and long-term health advantages. For more information, visit: pediatrics.aappublications.org/content/129/3/e827.

As of August 31, 2012, Milwaukee water is fluoridated at a level not to exceed 0.7 mg/L. According to the CDC, for infants up to six months of age, if tap water is fluoridated

or has substantial natural fluoride (0.7 mg/L or higher) and is being used to dilute infant formula, a parent may consider using a low-fluoride alternative water source. Bottled water known to be low in fluoride is labeled as purified, deionized, demineralized, distilled, or prepared by reverse osmosis. Ready-to-feed (no-mix) infant formula typically has little fluoride and may be preferable at least some of the time. If breastfeeding is not possible, parents should consult a pediatrician about an appropriate infant formula option. Parents should be aware that there may be an increased chance of mild dental fluorosis if the child is exclusively consuming infant formula reconstituted with fluoridated water. Dental fluorosis is a term that covers a range of visible changes to the enamel surface of the tooth. For more information on dental fluorosis and the use of fluoridated drinking water in infant formula, go to [CDC.gov/fluoridation](https://www.cdc.gov/fluoridation)

Information for Those with Compromised Immune Systems and/or Vulnerable Populations

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 systems 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/CDC 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).

Milwaukee Water Works

Customer Service Center
Zeidler Municipal Building
841 N. Broadway, Room 406
Milwaukee, WI 53202
Open M-F, 7:30 a.m. to 5:00 p.m.

Phone: (414) 286-2830
TDD: (414) 286-8801

24-hour Water Control Center:
(414) 286-3710

[Milwaukee.gov/water](https://www.milwaukee.gov/water)

For non-emergency contact: watwebcs@milwaukee.gov

Para una explicación en Español, por favor llame al: (414) 286-2830