



2022 Water Quality Report

Introduction

The West Allis Water Utility purchases water from the City Of Milwaukee Water Works. Our water is supplied to us from Milwaukee's Howard Avenue Water Treatment Plant, from two (2) metered supply points in West Allis.

During 2022, 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 consumers. 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 USEPA and the Wisconsin DNR. The West Allis Water Utility is committed to protecting the health of the public served by our 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 have any questions about this report or the West Allis Water Utility, please contact Karyn Rittenhouse, Water Superintendent at 414-302-8830.

Opportunity for Input on Decisions Affecting your Water Quality

The Common Council meets on the first and third Tuesday of each month except July and August. The Common Council meets at 7 pm. at West Allis City Hall, 7525 W. Greenfield Ave.

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 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).

Water Source

The City of West Allis Water Utility purchases water from the Milwaukee Water Works. The source of the drinking water is Lake Michigan. 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, 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.

Term	Definition
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	Violation	Typical Source of Contaminant
HAA5 (ppb)	D-38	60	60	3	2 - 4	No	By-product of drinking water chlorination
TTHM (ppb)	D-38	80	0	11.9	8.0 - 15.4	No	By-product of drinking water chlorination
HAA5 (ppb)	D-6	60	60	3	2 - 5	No	By-product of drinking water chlorination
TTHM (ppb)	D-6	80	0	11.8	7.9 - 15.0	No	By-product of drinking water chlorination
HAA5 (ppb)	D-69	60	60	3	2 - 4	No	By-product of drinking water chlorination
TTHM (ppb)	D-69	80	0	10.6	6.5 - 14.1	No	By-product of drinking water chlorination
HAA5 (ppb)	EPDS-1	60	60	3	2 - 4	No	By-product of drinking water chlorination
TTHM (ppb)	EPDS-1	80	0	10.0	6.9 - 13.0	No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.1200	0 of 30 results were above the action level.	7/14/2020	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	6.40	3 of 30 results were above the action level.	7/14/2020	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants with a 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)	SMCL (ppm)	PHGS or HAL (ppm)	Level Found	Range	Sample Date (if prior to 2022)	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

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.

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Distribution System

Contaminant (µg/l)	Average	Range	Date Tested	Typical Source of Contaminant
HAA5 (ppb)	3.6	1.6-4.6	2018-19	By-product of drinking water Chlorination
HAA6Br (ppb)	3.5	1.9-4.2	2018-19	By-product of drinking water Chlorination
HAA9 (ppb)	6.5	3.5-7.8	2018-19	By-product of drinking

Entry Points

Contaminant (µg/l)	Average	Range	Date Tested	Typical Source of Contaminant
Alpha-Hexachlorocyclohexane (ppb)	<0.01	<0.01	2018-19	Pesticide
Anatoxin-a (ppb)	<0.03	<0.03	2018-19	Source water
1-butanol (ppb)	<2.00	<2.00	2018-19	Solvent, food additive
Butylated hydroxyanisole (ppb)	<0.03	<0.03	2018-19	Food additive (antioxidant)
Chlorpyrifos (ppb)	<0.03	<0.03	2018-19	Organophosphate, insecticide, acaricide, miticide
Cylindrospermopsin (ppb)	<0.09	<0.09	2018-19	Source water
Dimethipin (ppb)	<0.20	<0.20	2018-19	Herbicide and plant growth regulator
Ethoprop (ppb)	<0.03	<0.03	2018-19	Insecticide
Germanium (ppb)	<0.30	<0.30	2018-19	Naturally occurring element
Manganese (ppb)	<0.01	ND-1.175	2018-19	Naturally occurring element
2-methoxyethanol (ppb)	<0.40	<0.40	2018-19	Synthetic cosmetics, perfumes, fragrances, hair preparations, skin lotions
o-toluidine (ppb)	<0.007	<0.007	2018-19	Dyes, rubber, pharmaceuticals, pesticide
Oxyfluorfen (ppb)	<0.05	<0.05	2018-19	Herbicide
Microxystin total (ppb)	<0.30	<0.30	2018-19	Source water
Permethrin total (ppb)	<0.04	<0.04	2018-19	Insecticide
Profenofos (ppb)	<0.30	<0.30	2018-19	Insecticide and acaricide
2-Prpen-1-ol (ppb)	<0.50	<0.50	2018-19	Flavorings, perfumes
Quinoline (ppb)	<0.02	<0.02	2018-19	Anti-malarial pharmaceutical, flavoring agent
Tebuconazole (ppb)	<0.20	0.20	2018-19	Fungicide
Tribufos (ppb)	<0.07	<0.07	2018-19	Insecticide, cotton defoliant
HAA5 (ppb)	3.6	1.6-4.6	2018-19	By-product of drinking water Chlorination
HAA6Br (ppb)	3.8	3.5-4.3	2018-19	By-product of drinking water Chlorination
HAA9 (ppb)	6.8	6.4-7.8	2018-19	By-product of drinking water Chlorination

Water Quality Parameter (2017)

Measurement	Minimum	Mean	Maximum
Alkalinity, Total (mg/l)	98	98.9	100
Hardness, Total (mg/l)	130	130	130
Conductivity (µmhos/cm)	323	328.1	331
Chloride (mg/l)	14	14.7	15
Sulfate (mg/l)	27	27.4	28
Phosphorus (mg p/l)	0.61	0.63	0.68
Calcium (mg/l)	33	33.1	34
Iron (mg/l)	0.02	0.01	0.06
Aluminum (mg/l)	.061	0.08	0.12
Manganese (µg/l)	1	0.41	1.7

Contaminant Health Effects - with MCL violations/Action Level Exceedances/SMCL exceedances/PHGS or HAL exceedances)

Aluminum

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

Lead and Copper

The City of West Allis Water Utility is required to test the drinking water in a number of homes for copper and lead. The utility last tested in 2020 and will test again in 2023. Of the 30 homes tested for lead in 2020, three had test results above the action level of 15 ppm. Of the 30 homes tested for copper in 2020, none had test results above the action level of 1.3 ppm.

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. West Allis Waterworks 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 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.

Cryptosporidium

Cryptosporidium is a microscopic protozoan that when ingested, can result in diarrhea, fever, and other gastrointestinal symptoms. The Milwaukee Water Works and the Milwaukee Health Department consider Cryptosporidium detection a priority, and since 1993, have continued to test untreated and treated water for Cryptosporidium. The organism is found in many surface water sources (lakes, rivers, streams) and comes from human and animal wastes in the watershed. The risk of Cryptosporidium from drinking water in Milwaukee has been reduced to extremely low levels by an effective treatment combination including ozone disinfection, coagulation, sedimentation, biologically active filtration, and chloramine disinfection.

The Milwaukee Water Works provides a brochure based on EPA and CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium. Obtain a copy from their Customer Service Center, (414) 286-2830, or at <http://city.milwaukee.gov/water/WaterQuality> and scroll down to Resources Links, choose "Information for persons with weakened immune systems."

Purchased Water

Our water system purchases water from Milwaukee Water Works. In addition to the detected contaminants listed above, the results from Milwaukee Water Works are listed below in their Consumer Confidence Report or at: <http://city.milwaukee.gov/WaterConsumerConfidenceReport>