2015 Consumer Confidence Report Data GREENDALE WATERWORKS, PWS ID: 24105719

Water System Information

If you would like to know more about the information contained in this report, please contact Mark S Uecker at (414) 423-2133.

Opportunity for input on decisions affecting your water quality

The Committee of the Whole and the Village Board of Trustees meet the first and third Tuesdays at Village Hall, 6500 Northway Greendale, Wisconsin at 6 p.m. and 7 p.m. respectively.

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).

Source(s) of Water

Source ID	Source	Depth (in feet)	Status
1	Purchased Surface Water		Active

Purchased Water

PWS ID	PWS Name
24101000	MILWAUKEE WATERWORKS

To obtain a summary of the source water assessment please contact, Mark S Uecker at (414) 423-2133.

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.
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.

Term	Definition
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
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 2015)	Violation	Typical Source of Contaminant
HAA5 (ppb)	SAMPLE 1	60	60	4	4 - 5		No	By-product of drinking water chlorination
TTHM (ppb)	SAMPLE 1	80	0	9.9	5.4 - 11.3		No	By-product of drinking water chlorination

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
HAA5 (ppb)	SAMPLE 3	60	60	5	4 - 5		No	By-product of drinking water chlorination
TTHM (ppb)	SAMPLE 3	80	0	10.4	6.6 - 11.3		No	By-product of drinking water chlorination
HAA5 (ppb)	SAMPLE 4	60	60	4	3 - 5		No	By-product of drinking water chlorination
TTHM (ppb)	SAMPLE 4	80	0	10.4	6.6 - 11.4		No	By-product of drinking water chlorination
HAA5 (ppb)	SAMPLE 6	60	60	3	0 - 5		No	By-product of drinking water chlorination
TTHM (ppb)	SAMPLE 6	80	0	11.5	7.1 - 11.3		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.0690	0 of 30 results were above the action level.	9/5/2014	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	0.85	1 of 30 results were	9/4/2014	No	Corrosion of household plumbing

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
				above the action level.			systems; Erosion of natural deposits

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. 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 to good health, but excessive quantities can be hazardous

Contaminant (units)	Level Found	Range	Sample Date (if prior to 2015)
NAPHTHALENE (ppb)	0.95	0.13 - 1.80	

Health effects for any contaminants with MCL violations/Action Level Exceedances

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.

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. Greendale 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.

Presence of Other Contaminants

Substance	Range of Values Detected
Aldehydes, Total	< 0.5 - 7.2 mg/L
Ammonia1, as N	0.33 - 0.54 mg/L
Boron2	0.025 mg/L
Bromide	0.017 - 0.041 mg/L
Bromochloroacetonitrile	0.5 - 1.0 µg/L
Calcium	34 mg/L
Chloropicrin	< 0.5 - 1.4 mg/L
Dibromoacetonitrile	0.7 - 1.3 µg/L
Dichloroacetonitrile	< 0.5 - 0.9 µg/L
Dichloropropanone	< 0.5 - 0.5 µg/L
Erucylamide	6.8 µg/L
Gallium	0.001 mg/L
Isophorone3	0.12 µg/L
Lithium	2.3 µg/L
Magnesium	12 mg/L
Magnesium Hardness	43 - 60 mg/L
Phosphate, as PO4	1.82 - 2.39 mg/L
Potassium	1.4 - 1.7 mg/L
Rubidium	1.1 µg/L
Silica	1.95 - 2.0 mg/L
Sodium	9.5 - 14.4 mg/L
Total Organic Carbon	1.2 - 1.4 mg/L
Trichloropropanone	< 0.5 - 0.6 µg/L

The table below shows the unregulated substances detected in Greendale's drinking water during 2015. There is no known adverse health effect from these substances in drinking water at these levels.

Contaminant (units)	Action Level	MRL	Rang ug/L	Average ug/L	Violation	Typical Source of Contaminant
Chlorate	NR	20	30.674-51.369	43.571	No	Corrosion of household plumbing systems; Erosion of natural

Contaminant (units)	Action Level	MRL	Rang ug/L	Average ug/L	Violation	Typical Source of Contaminant
						deposits; Leaching from wood preservatives
Chromium	NR	0.2	0.219-0.548	0.3075	No	Corrosion of household plumbing systems; Erosion of natural deposits
Chromium-6	NR	.03	0.143-0.21	0.186	No	Corrosion of household plumbing systems; Erosion of natural deposits
Molybdenum	NR	1	1.001-1.019	1.01	No	Corrosion of household plumbing systems; Erosion of natural deposits
Strontium	NR	.03	113.926-120.945	116.1325	No	Corrosion of household plumbing systems; Erosion of natural deposits
Vanadium	NR	0.2	0.221-0.268	0.249	No	Corrosion of household plumbing systems; Erosion of natural deposits

Information on Monitoring for Cryptosporidium and Radon

Greendale Water Works system did not monitor our water for cryptosporidium or radon during 2015. We are not required by State or Federal drinking water regulations to do so.

Presence of Other Contaminants

The table below shows the unregulated substances detected in Milwaukee's drinking water during 2015. There is no known adverse health effect from these substances in drinking water. **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 to good health, but excessive quantities can be hazardous**

Substance	Ideal Goals (MCLG)	Highest Level Allowed (MCL)	Median Value
Aluminum	0.2 mg/L	NR	0.055 mg/L
Barium	2 mg/L	2 mg/L	0.019 mg/L
Bromate	10 mg/L	10 mg/L (RAA)	< 5 mg/L (RAA)
Bromochloroacetic acid	NA	Regulated as a group (HAA5)	< 1 mg/L
Bromodichloroacetic acid	NA	Regulated as a group (HAA5)	1 mg/L
Bromodichloro-methane	NA	Regulated as a group (TTHMs)	3.0 mg/L
Chlorate**	NA	NR	40 mg/L
Chloride	250 mg/L	NR	13.3 mg/L
Chlorine, total	4 mg/L	4 mg/L	1.25 mg/L
Chlorite	0.8 mg/L	1.0 mg/L	0.003 mg/L
Chloroform	NA	Regulated as a group (TTHMs)	2.5 mg/L
Chromium, Hexavalent**	NA	NR	0.18 mg/L
Chromium	NA	NR	0.18 mg/L
Chromium, Total**	NA	100 mg/L	0.3 mg/L
Copper	1.3 mg/L	1.3 mg/L (AL)	0.069 mg/L (AL)
Dibromodichloro-methane	NA	Regulated as a group (TTHMs)	2.3 µg/L
Dichloroacetic acid	NA	Regulated as a group (HAA5)	3.2 µg/L
Fluoride	4 mg/L	4 mg/L	0.53 mg/L
Gross Alpha particles	Zero	15 pCi/L	2.7 pCi/L

Gross Beta particles	Zero	50 pCi/L	5.3 pCi/L
Haloacetic Acids, total	NA	60 µg/L	3.9 µg/L
Heterotrophic Plate Count Bacteria	NA	TT	< 1 cfu/mL
Iron	0.30 mg/L	NR	0.007 mg/L
Lead	Zero	15 µg/L (AL)	8.2 µg/L (AL)
Molybdenum**	NA	NR	1.0 µg/L
Nitrate, as N	10.0 mg/L	10.0 mg/L	0.30 mg/L
Perchlorate (UCMR -1 Contaminant)	NA	Regulation Pending	0.10 µg/L
pH	NA	6.5 to 8.5	7.63
Radium, combined 226 + 228	Zero	5 pCi/L	1.98 pCi/L
Strontium**	NA	NR	117 µg/L
Sulfate	500 mg/L	NR	29 mg/L
Total Dissolved Solids	500	NR	179 mg/L
Trichloroacetic acid	NA	Regulated as a group (HAA5)	0.89 µg/L
Trihalomethanes, total	NA	80 µg/L	8.3 µg/L
Turbidity	NA	<0.3 NTU 95% of the time	0.04 NTU 95% of the time
Uranium, total	Zero	30 µg/L	0.23 µg/L
Vanadium**	NA	NR	0.24 µg/L

Purchased Water

Our water system purchases water from MILWAUKEE WATERWORKS. In addition to the detected contaminants listed above, these are the results from MILWAUKEE WATERWORKS. To see Milwaukee Waterworks entire 2015 Consumer Confidence report, please click on this link:

http://milwaukee.gov/WaterConsumerConfidenceReport

Milwaukee Water Works information:

Milwaukee Water Works information

All contaminant levels are within applicable state and federal laws. The table contains the name of each contaminant, the highest level regulated (maximum Contaminant Level, or MCL), the

ideal goals for public health contamination, and footnotes explaining the findings and units of measurement.