

2006 Water Quality Report

This Consumer Confidence Report is required by the U.S. Environmental Protection Agency (EPA) to enable consumers to make informed choices about their health and their environment. The report is meant to encourage consumers to consider the challenges and costs of delivering safe drinking water, and to help protect their water source and the environment. To view a more detailed report, click on Water Quality at the Milwaukee Water Works website, <http://www.water.mpw.net>. If you have any questions or concerns, call the Greendale Water Utility at (414) 423-2100 or visit the Village web site at www.greendale.org.



Carl J. Tisonik
Director
Village of Greendale Water Utility



John Campion
Superintendent



contaminants does not necessarily indicate that water poses a health risk. Learn more about contaminants and potential health effects by calling the EPA Safe Drinking Water Hotline, **800-426-4791**.

GREENDALE WATER & SEWER UTILITY RATES

The Greendale Water & Sewer Utilities publish their rates annually. Water Utility rates have not changed since September 1, 1999. Sewer Utility rates changed January 1, 2007 in response to a rate adjustment made by the Milwaukee Metropolitan Sewer District. If you are interested in learning more about the Greendale Water & Sewer Utilities, please call the Customer Service Line at (414) 423-2100.

WATER

Quarterly Connection Charge

5/8-inch Meter	12.85
3/4-inch Meter	12.85
1-inch Meter	31.24
1-1/2-inch Meter	61.58
2-inch Meter	98.18
3-inch Meter	183.86
4-inch Meter	303.45
6-inch Meter	606.90

Usage (Per 1,000 gallons of usage)

1st 30,000 Gallons Per Quarter	1.548
Next 270,000 Gallons Per Quarter	1.318
Over 300,000 Gallons Per Quarter	0.978

Quarterly Private Fire Protection

1-1/2-inch Lateral	9.00
2-inch Lateral	13.00
3-inch Lateral	23.00
4-inch Lateral	36.00
6-inch Lateral	66.00
8-inch Lateral	105.00
10-inch Lateral	135.00

Bills for water and sewer service are rendered quarterly and become due and payable upon issuance following the period for which service was rendered. A late payment charge of 3% will be added to bills not paid within 20 days of issuance. The late payment charge is applicable to all customers. The customer may be given a written notice that the bill is overdue no sooner than 20 days after the bill is issued. Unless payment or satisfactory arrangement for payment is made within the next eight days, service may be disconnected pursuant to Chapter PSC 185, Wis. Adm. Cod.

RECYCLING

Quarterly Usage Charge

Recycling	5.49
Recycling 2	10.98

SANITARY SEWER

Local Quarterly Connection Charge

5/8-inch Meter	8.70
3/4-inch Meter	8.70
1-inch Meter	14.00
1-1/2-inch Meter	23.00
2-inch Meter	33.00
3-inch Meter	58.00
4-inch Meter	92.00
6-inch Meter	180.00

MMSD Quarterly Connection Charge

M SWR CON	5.28
M SWR CON 2	2.64
M SWR CON 3	1.76
M SWR CON TW	10.56
M SWR CON TR	15.84
M SWR CON F	21.12

Local Usage (per 1,000 gallons of usage)

L Sewer Use	0.18
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MMSD Usage (per 1,000 gallons of usage)

M SWR Use	1.01383
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All residential sewer customers receive a Summer sewer usage credit. The second and third quarter water volume charges (for sewer purposes) are compared to the first quarter volume billed and on the lowest volume used for these billings.

STORM WATER

Quarterly Usage Charge

Each equivalent runoff unit 18.00
A Storm Water Management Utility fee of \$72.00 per year for each equivalent runoff unit became effective January 1, 2007. The average single family residential parcel in the Village has 3,941 sq. ft. of impervious surface. This average was established as the "Equivalent Runoff Unit" or ERU. Non-residential parcels are charged proportionately on the amount of impervious surface they have compared to a single family residential parcel or ERU (3,941 sq. ft.).

Information for Persons with Compromised Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Additional information is available from the Centers for Disease Control (CDC) (<http://www.cdc.gov/>).

Cryptosporidium

Cryptosporidium is a microscopic protozoan that when ingested, can result in diarrhea, fever, and other gastrointestinal symptoms. The Milwaukee Water Works and the Village of Greendale 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 ozonation, coagulation, sedimentation, filtration, and disinfection.

The Village of Greendale Health Department has prepared a pamphlet based on EPA and CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*. Copies of this pamphlet are available from the Greendale Health Department, (414) 423-2110. Or, view a copy in English or Spanish at www.milwaukee.gov/health and click on *Air/Water/Toxics*.

Lead and Copper

The Water Works is required to monitor the drinking water in a number of homes each year for lead and copper. Water can absorb lead that corrodes from solder, fixtures, and pipes found in the plumbing of some buildings and homes. The Water Works has optimized corrosion control by adding an amount of phosphate to the drinking water at the treatment plants.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to flush your tap for two to three minutes before using tap water, or have your water tested. For more information, call the EPA Safe Drinking Water Hotline, **800-426-4791**.

Water — A Precious Resource

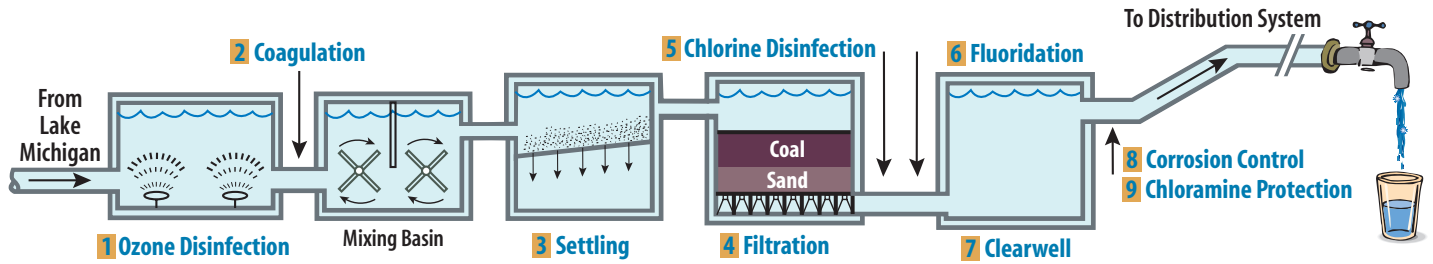
The Village of Greendale purchases its water from Milwaukee Water Works. Although Milwaukee has a surplus of high quality drinking water, water conservation practices encourage the sustainable use of water so future generations also have sufficient supplies of water. For information about using water wisely in your home, see <http://www.h2ouse.org>.

The source of the Village of Greendale's drinking water is Lake Michigan, a surface water source. As water flows through rivers and lakes and over land surfaces, naturally occurring substances may be dissolved in the water. The substances are called contaminants. Surface water sources may be highly susceptible to contaminants. Surface water is also affected by animal and human activities. The Wisconsin Department of Natural Resources performed a Source Water Assessment for Milwaukee in 2003. View this report at <http://www.dnr.state.wi.us/org/ater/dwg/swap/surface/milwaukee.pdf>

Contaminants that might be expected in untreated water include: inorganic contaminants, such as salts and metals; biological contaminants, such as viruses, protozoa and bacteria; organic chemicals from industrial or petroleum use; pesticides and herbicides; and radioactive materials.

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

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 chlorinated disinfection byproducts.
- 2. Coagulation** — Very fine particles in the water adhere together to form larger particles as the coagulant alum is mixed into the water. Large particles are more effectively removed during the settling and filtering processes.
- 3. Settling** — Settling is the process in which solid particles settle out and are removed from the water.
- 4. 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 filters, chlorine is added as a secondary disinfectant. This provides extra protection from potentially harmful microorganisms.
- 6. Fluoridation** — Fluoride, when administered at low levels, is proven to help prevent tooth decay.
- 7. Clearwell** — Treated water is stored in deep underground tanks and pumped as needed through the distribution system.
- 8. Corrosion Control** — A phosphorous compound is added to help control corrosion of pipes. This helps prevent lead and copper from leaching from plumbing into the water.
- 9. Chloramine Protection** — Ammonia changes the chlorine to chloramine, a disinfectant that maintains bacteriological protection in the distribution system.

Treated Water Quality

Extensive testing ensures quality

The EPA requires water utilities to test for 90 regulated contaminants on a regular basis. The Milwaukee Water Works also voluntarily tests for 450 unregulated contaminants to assure the highest quality water. Most of the contaminants are not detected.

Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. More information can be obtained from the EPA at <http://www.epa.gov/safewater/ccr>

The table below shows the substances that were detected in water quality testing in 2006. Every substance that is detected, even in the most minute trace, is listed here. All are below levels allowed by state and federal laws. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, and footnotes explaining the findings and units of measurement. Please note the simple 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 (MCLGs)	Highest Level Allowed (MCLs)	Median Value	Highest Level Detected	Source(s) of Contaminant
Aluminum	0.2 mg/L	NR	0.035 mg/L	0.07 mg/L	2,3
Barium	2 mg/L	2 mg/L	0.02 mg/L	0.02 mg/L	3
Bromate	10 µg/L	10 µg/L (RAA)	4 µg/L (RAA)	NR	4
Chlorine, total		4 mg/L	1.34 mg/L	1.73 mg/L	5
Chromium	100 µg/L	100 µg/L	5 µg/L	10 µg/L	3
Coliform Bacteria, total	0	<5% of samples/month	<1%	<1%	7
Copper	1.3 mg/L	1.3 mg/L (AL)	0.025 mg/L (AL)	NR	6
Fluoride		4 mg/L	0.61 mg/L	1.7 mg/L	2,3
Haloacetic Acids, total	0 µg/L	60 µg/L	2.4 µg/L	6.5 µg/L	4
Lead	0 µg/L	15 µg/L (AL)	14 µg/L (AL)	NR	6
Organic Carbon, total	TT	TT	1.4 mg/L	2.2 mg/L	3
Potassium	NR	NR	1.1 mg/L	1.5 mg/L	3
Radium, combined ¹	0 pCi/L	5 pCi/L	0.7 pCi/L	0.7 pCi/L	3
Sodium	NR	NR	7.3 mg/L	12.5 mg/L	3
Sulfate	500 mg/L	NR	30 mg/L	33 mg/L	3
Trihalomethanes, total	0 µg/L	80 µg/L	7 µg/L	14.4 µg/L	4
Turbidity		<0.3 NTU 95% of the time	0.05 NTU 95% of the time	0.14 /NTU 1-day max	3
Uranium, total ¹		20 pCi/L	0.54 pCi/L	0.57 pCi/L	3

Definitions and Notes

<	“less than” or not detected	pCi/L	Picocuries per liter, a measure of radioactivity. A picocurie is 10 ⁻¹² curies.
AL	Action Level – The concentration of a contaminant that, 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.	RAA	Running Annual Average – The average of (4) quarterly samples collected in one year
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 technology.	TT	Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water
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.	1	Results are from samples collected in 2003
mg/L	milligrams per liter or parts per million	2	Water treatment additive
µg/L	micrograms per liter or parts per billion	3	Natural deposits
Median	The middle value of the entire data set for the parameter (range from high to low)	4	Byproduct of drinking water disinfection
NTU	Nephelometric Turbidity Units - unit to measure turbidity	5	Residual of drinking water disinfection
NR	Not regulated	6	Corrosion of household plumbing systems
		7	Naturally present in the environment

