

Annual Drinking Water Quality Report for Calendar Year 2017

Marquette Heights

IL1790400

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. This report includes drinking water facts, information on violations (if applicable), and contaminants detected in your drinking water supply during calendar year 2017. Each year, we will provide you a new report. If you need help understanding this report or have general questions, please contact the person listed below.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

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Before we begin listing our unique water quality characteristics, here are some important facts you should know to help have a basic understanding of drinking water in general.

Sources of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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 pickup substances resulting from the presence of animals or from human activity.

Our source of water comes from: **Ground Water**

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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Other Facts about Drinking Water

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 USEPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800-426-4791).

Source Water Assessments

Source water protection (SWP) is a proactive approach to protecting our critical sources of public water supply and assuring that the best source of water is being utilized to serve the public. It involves implementation of pollution prevention practices to protect the water quality in a watershed or wellhead protection area serving a public water supply. Along with treatment, it establishes a multi-barrier approach to assuring clean and safe drinking water to the citizens of Illinois. The Illinois EPA has implemented a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies.

Source Water Information

Source Water Name Type of Water Report Status Location

WELL 4 (50280) WATER WELL NO 4GW, 710 FT WNW of WTP

WELL 6 (01782) WATER WELL NO 6GW, Northwest corner of Sunset Blvd. and Morgan St.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings on the 2nd and 4th Monday of each month @ 7pm. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 309-382-3455. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

To determine Marquette Heights' susceptibility to contamination, a Well Site Survey, published by the Illinois EPA in 1990, was reviewed. Based upon this survey, there are 22 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Marquette Heights' wells. These include 1 above ground fuel storage tank, 6 below ground fuel storage tanks, 2 hazardous waste storage facilities, 9 auto repairs, 2 abandoned or improperly plugged wells, 1 office, and 1 commercial application of pesticides facility. In addition, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated additional sites with on-going remediation which may be of concern. Based upon this information, the Illinois EPA has determined that the Marquette Heights community water supply's source water is susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculations for the wells. The land use within the recharge area of the wells was analyzed as part of this susceptibility determination. This land use includes residential, industrial, and commercial properties.

2017 Regulated Contaminants Detected

The next several tables summarize contaminants detected in your drinking water supply.

Here are a few definitions and scientific terms which will help you understand the information in the contaminant detection tables.

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Avg	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal 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.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.
N/A	Not Applicable
NTU	Nephelometric Turbidity Units
pCi/L	picocuries per liter (a measure of radioactivity)
ppb	parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
ppm	parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Coliform Bacteria	MCLG	Total Coliform MCL	Highest Number of Positive Samples	Fecal Coliform or <i>E. coli</i> MCL	Total No. of Positive <i>E. coli</i> or Fecal Coliform Samples	Violation	Likely Source of Contamination
Monthly Sampling	0	MCL: presence of coliform bacteria in > 5% of monthly samples (for systems that collect 40 or more samples/month). > 1 positive monthly sample (for systems that collect < 40 samples/month).	0	Fecal Coliform or <i>E. coli</i> MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	0	N	Naturally present in the environment

Lead and Copper								
	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	8/28/2016	1.3	1.3	0.31	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	8/28/2016	0	15	1.8	0	Ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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. **City of Marquette Heights** 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 <http://www.epa.gov/safewater/lead>.

Disinfectants & Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2017	1.13	0.33 – 1.13	4	4	ppm	N	Water additive used to control microbes
Haloacetic Acids (HAA5)	8/8/2017	2	1.69 – 1.69	No goal	60	ppb	N	By product of drinking water disinfection
Trihalomethanes (TTHM)	8/8/2017	13	12.5 – 12.5	No goal	80	ppb	N	By product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	12/11/2017	1.8	1.8 – 1.8	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	12/11/2017	0.011	0.011 - 0.011	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	12/11/2017	0.79	0.79 - 0.79	4	4.0	ppm	N	Erosion of natural deposits, water additive which promotes strong teeth; Discharges from fertilizer and aluminum factories.
Iron	12/11/2017	0.021	0.021 – 0.021		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate (measured as Nitrogen)	4/10/2017	3	3 – 3	10	10	ppm	N	Run-off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	12/11/2017	440	440 – 440			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.
Zinc	12/11/2017	0.0091	0.0091 – 0.0091	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1,1-Trichlorethane	4/10/2017	0.50	0.50 – 0.50	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
Radiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium	7/18/2016	1.348	1.348 - 1.348	0	5	pCi/L	N	Erosion of Natural deposits.
Gross alpha excluding radon and uranium	7/18/2016	0.147	0.147 – 0.147	0	15	pCi/L	N	Erosion of natural deposits