

Annual Drinking Water Quality Report

Consumer Confidence Report

Rochester, IL - IL1671000

January 1 to December 31, 2019

Annual Water Quality Report for the period of January 1 to December 31, 2019 for Rochester, IL.

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.

Rochester, IL's drinking water is purchased from the city of Springfield, IL. City, Water, Light, and Power (CWLP).

For more information regarding this report contact: James Foster – 217.498.7192

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

Sources of Drinking Water

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 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.

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 at (800) 426-4791.

To ensure tap water is safe to drink, the United States Environmental Protection Agency (USEPA) prescribes regulations that limit the amount of contaminants in water provided by public water systems (PWS). The Illinois Environmental Protection Agency (IEPA) administers the drinking water program in Illinois under rules adopted by the Illinois Pollution Control Board. These rules are identical in substance to those of the USEPA. Food and Drug Administration (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 Safe Drinking Water Hotline (800-426-4791).

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Where does my water come from?

The Village of Rochester purchases water from Springfield, IL CWLP - FF IL1671200 TP01. The master meter is located on West Main, where Rochester water mains and CWLP water mains connect.

Lake Springfield is the surface water source of our drinking water. It contains over 17 billion gallons of water and covers about 4,200 acres. Its 265-square-mile watershed, including the Sugar and Lick Creek drainage areas, is composed primarily of agricultural land. During times of low precipitation, water is pumped from the South Fork of the Sangamon River at its confluence with Horse Creek.

In 2019, as in years past, your tap water produced by City Water, Light & Power (CWLP) met all United States Environmental Protection Agency (USEPA) and State of Illinois drinking water health standards. The purification process is monitored 24 hours each day, and CWLP is pleased to report the utility had no violations of a contaminant level or of any other water quality standards in 2019. This report, which summarizes the quality of water CWLP provided last year, and other utility information are available on the CWLP website at www.cwlp.com.

Source water assessment and its availability

Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to lakes include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural run-off, land disposal (septic systems), and shoreline erosion. If you would like a copy of the assessment, call the Water Purification Plant at (217)757-8630.

Description of Water Treatment Process

To convert this raw water supply to drinking water, lake water is pumped through CWLP's Water Purification Plant where chemical reactions are initiated to assist in the removal of algae, suspended solids, hardness and many chemical constituents. The clarification basins remove the bulk of these materials and the final filter beds remove very small particles. Fluoride is added to prevent tooth decay; chlorine to disinfect the finished water; and ammonia to stabilize the chlorine in the distribution system.

Results of Cryptosporidium monitoring

Cryptosporidium is a microbial parasite found in surface water throughout the United States. Filtration removes cryptosporidium, but the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of cryptosporidium can cause cryptosporidiosis, the symptoms of which include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the infection within a few weeks, but people who are immuno-compromised have a greater risk of developing a life-threatening illness. The disease may be spread through means other than drinking water, such as poor sanitation practices.

Past monitoring has indicated the presence of Cryptosporidium in our source water, but these organisms have never been detected in the finished drinking water. Treatment processes have been optimized to ensure that if there are Cryptosporidium cysts in the source water, they will be removed during the treatment process. By maintaining low turbidity, a result of efforts to remove particles from the water, the threat of Cryptosporidium organisms getting through the treatment process and into the drinking water system is greatly reduced.

Additional Information for Lead

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. The Village of Rochester and Springfield City Water, Light & Power is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components, within a building. 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, (1-800-426-4791), at <http://www.epa.gov/safewater/lead> or <https://cwlp.com/leadawareness>.

The Lead and Copper Rule (LCR) was developed to protect public health by minimizing lead levels in drinking water. The LCR established an action level of 15 ppb for lead based on the 90th percentile level of tap water samples collected. Lead is sampled on a mandated three-year-testing cycle with sampling conducted at the customer's tap.

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Additional Information for Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that were detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires the Village of Rochester and CWLP to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions at the end of this report.

	Contaminants	MCLG	MCL	Highest Level Found	Range		Sample Date	Violation	Typical Source of Contaminant
					Low	High			
Disinfectants & Disinfection By-Products									
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)									
Springfield	Chloramine (as Cl ₂) (mg/L)	MRDLG=4	MRDL =4	2	2	2	2019	No	Water additive used to control microbes
	Haloacetic Acids (HAA5) (ppb)	NA	60	21.4	10.9	30.2	2019	No	By-product of drinking water disinfection
	TTHMs [Total Trihalomethanes] (ppb)	NA	80	45.7	18.6	73.4	2019	No	By-product of drinking water disinfection
Rochester	Chloramine (as Cl ₂) (mg/L)	MRDLG=4	MRDL =4	2.5	2	2.5	2019	No	Water additive used to control microbes
	Haloacetic Acids (HAA5) (ppb)	NA	60	19	8.6	20	2019	No	By-product of drinking water disinfection
	TTHMs [Total Trihalomethanes] (ppb)	NA	80	60	3.3	42.9	2019	No	By-product of drinking water disinfection
The percentage of TOC removal was measured each month and CWLP met all TOC removal requirements.									

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Contaminants	MCLG	MCL	Highest Level Found	Range		Sample Date	Violation	Typical Source of Contaminant
				Low	High			
Inorganic Contam								
Barium (ppm)	2	2	0.022	NA	NA	2019	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.7	0.6	0.7	2019	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	6.4	ND	6.4	2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
State Regulated Contaminants								
Sodium (ppm)	NA		12	NA	NA	2019	No	Erosion from naturally occurring deposits; Used in water softener regeneration.
There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials								
Microbiological Contaminants								
Turbidity (NTU)	NA	0.3	100	NA	NA	2019	No	Soil runoff
100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.26. Any measurement in excess of 1 is a violation unless otherwise approved by the state who are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, consult a physician about this level.								
Synthetic organic contaminants including pesticides and herbicides								
Atrazine (ppb)	3	3	1	ND	1	2019	No	Runoff from herbicide used on row crops

Contaminants	MCLG	AL	90th Percentile	# Sites Over AL	Sample Date	Typical Source of Contaminant
Inorganic Contaminants						
Lead - action level at consumer taps (ppb)	0	15	ND	4	2019	Corrosion of household plumbing systems; Erosion of natural deposits

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Unregulated Contaminant Monitoring

A maximum contaminant level (MCL) for these contaminants have not been established by either state or federal regulations, nor has mandatory health effects language been set. The purpose of unregulated contaminant monitoring is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Unregulated Contaminant	Highest Level Found	Range	
		Low	High
HAA6Br (ug/L)	5.07	3.72	5.88
HAA9 (ug/L)	31.69	24.49	36.69
manganese (ug/L)	2.9	ND	2.9

Unit Descriptions	
Term	Definition
Avg.	Regulatory compliance with some MCLs are based on running averages of monthly samples.
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 and/or why total coliform bacteria have been found in our water system on multiple occasions.
mrem	millirems per year (a measure of radiation absorbed by the body)
TT	Treatment Technique - A process intended to reduce the level of a contaminant in drinking water.
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measurement of the cloudiness of the water caused by suspended particles. Turbidity is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.
NA	NA: not applicable
ND	ND: Not detected
%≤0.3 NTU	Percent of samples less than 0.3 NTU

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Important Drinking Water Definitions	
Term	Definition
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.