

January 1 to December 31, 2023

Annual Water Quality Report for the period of January 1, 2023, to December 31, 2023, for Rochester, IL.

This report is intended to provide you with important information about your drinking water and the efforts made by the water systems 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, Superintendent of Public Works and Responsible Operator in Charge (ROINC) either by phone at 217.498.7062 or via email at <u>ifoster@rochester.illinois.gov</u>.

You can also attend a Village of Rochester board meeting, held monthly on every 2nd Monday at 7:00pm at Village Hall.

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

Sources of 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, 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, 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 EPAs Safe Drinking Water Hotline at (800) 426-4791.



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To ensure tap water is safe to drink, the United Stated Environmental Protection Agency (USEPA) prescribes regulations that limit the number 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).

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 3,965 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 2023, 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 2023. This report, which summarizes the quality of water CWLP provided last year, and other utility information are available on the CWLP website at <u>www.cwlp.com</u>.

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.



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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 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.

Information on 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.



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Information for Lead

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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.

	Contaminants	MCLG	AL	90th Percentile	# Sites Over AL	Sample Date	Typical Source of Contaminant
	Inorganic Contaminant	S					
	Copper - action level at consumer taps (ppm)	1.3	1.3	0.0541	0	2022	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing system.
ester	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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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 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 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 below.

Im	Important Drinking Water Definitions or Unit Desciptions									
Term	Definition or Description									
ND	ND: Not detected									
%≤0.3 NTU	Percent of samples less than 0.3 NTU									
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.									
Highest Level Found	Highest level found of sample result data collected during the calendar year. It may represent a single sample if only one sample was collected.									
Range of Detections	Range of individual sample results, from lowest to highest, collected during the calendar year.									
Date of Sample	If a date is provided, the IEPA requires monitoring for this contaminant less than once per year because concentrations change infrequently. If no date appears, monitoring for this contaminant was conducted during the calendar year of this report.									



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Important Drinking Water Definitions or Unit Desciptions									
Term	Definition or Description								
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.								
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.								
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.								
MRDL	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	MRDLG: Maximum residual disinfection 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.								
NA	NA: not applicable								
mrem	millirems per year (a measure of radiation absorbed by the body)								
ppm	ppm: parts per million, or milligrams per liter (mg/L)								
ppb	ppb: parts per billion, or micrograms per liter (µg/L)								
ppb	ppb: parts per billion, or micrograms per liter (μ g/L)								
TT	Treatment Technique - A process intended to reduce the level of a contaminant in drinking water.								
mg/L	mg/L: Number of milligrams of a substance in one liter of water								
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)								
% positive samples/month	percent of samples taken monthly that were positive								
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.								



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		MCL	Highest Level Found	Ra	nge	Sample Date	Violation	Typical Source of Contaminant									
Contaminants	MCLG			Low	High												
Disinfectants & Disinfection By-Products																	
(Ther	e is convincing	g evidence tha	it addition of a disinf	ectant is ne	cessary for o	control of microb	ial contaminan	ts)									
Chloramine (as Cl2) (mg/L)	MRDLG=4	MRDL=4	2	1.81	2.08	2023	No	Water additive used to control microbes									
Haloacetic Acids (HAA5) (ppb)	NA	60	22	15.2	29.7	2023	No	By-product of drinking water disinfection									
TTHMs [Total Trihalomethanes] (ppb)	NA	80	46	25.4	72.2	2023	No	By-product of drinking water disinfection									
· · · · · · · · · · · · · · · · · · ·	The percentage	e of TOC remo	val was measured eac	h month and	CWLP met	all TOC removal	requirements.	The percentage of TOC removal was measured each month and CWLP met all TOC removal requirements									

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Violations Table

ŀ	Haloacetic Acids (HAA5)									
S	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.									
	Violation Violation Violation									
	Violation Type	Begin	End	Violation Explanation						
	Monitoring, Routine (DBP), Major	10/10/2023	12/31/2023	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.						

				Highest Level	Range		Sample		Typical
	Contaminants	MCLG	MCL	Found	Low	High	Date	Violation	Source of Contaminant
	Inorganic Contaminant	s							
Springfield	Barium (ppm)	2	2	0.015	NA	NA		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
	Fluoride (ppm)	4	4	0.6	0.59	0.059		No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
	Nitrate [measured as Nitrogen] (ppm)	10	10	1.52	ND	1.52		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits



Rochester, IL - IL1671000

Annual Drinking Water Quality Report

Consumer Confidence Report

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	State Regulated Contar												
Springfield	Sodium (ppm)	NA	NA	11.3	NA	NA		No	Erosion from naturally occurring deposits; Used in water softener regeneration.				
	There is no state or fede	eral MCL for s	odium. Monit	oring is required to pr	ovide inform	nation to con	sumers and heal	th officials who	are concerned about				
	sodiur	n intake due to	o dietary preca	utions. If you are on a	a sodium-res	tricted diet,	consult a physic	ian about this le	evel.				
	Microbiological Contaminants												
Springfield	Turbidity (NTU)	NA	0.3	100	NA	NA		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 measurement in excess of 1 is a violation unless otherwise approved by the state.								st single measur te.	rement was 0.33. Any				
	Radioactive Contaminants												
Springfield	Radium (combined 226/228) (pCi/L)	0	5	1.01	NA	NA	2020	No	Erosion of natural deposits				

Unregulated Contaminant Monitoring

A maximum contaminant level (MCL) for these contaminants has 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.

The Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) Data Summary: April 2024

The EPA has released the fourth set of data collected under UCMR 5 for 29 PFAS and lithium. The data released to date represent approximately 35% of the total results that the EPA expects to receive by completion of data reporting in 2026. The agency continues to conduct research and monitor advances in techniques that may improve our ability to measure these and other contaminants at even lower levels.

UCMR5

	Unregulated Contaminant		Range						
	Onregulated Containinant	Reported Level	Low	High	Sample Date				
Springfield	Perfluorobutanoic acid (PFBA) (ppb)	0.006	ND	0.006					
Rochester	Rochester had no contaminants above the MCL for UCMR5 testing period.								