

Annual Drinking Water Quality Report

MACEDONIA WATER SYSTEM

IL0554640

**Annual Water Quality Report for
the period of January 1 to
December 31, 2023**

This report is intended to provide you with important information about your drinking water and the efforts made by the MACEDONIA WATER SYSTEM to provide safe drinking water.

**The source of drinking water used by MACEDONIA WATER SYSTEM is Rend Lake Intercity Water System.
For more information regarding this report contact:**

Name: Tony Furlow

Phone: 618-439-4394

Email: tfurlow@rendlake.org

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

Source 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 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 may 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.

In order to ensure that tap water is safe to drink, EPA 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. USEPA/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).

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. We 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>

Source Water Assessment

The Macedonia Water System is a 1st-tier customer of the Rend Lake Intercity Water System. Rend Lake is utilized by the Rend Lake Intercity Water System to provide water to 67 communities in Williamson, White, Saline, Perry, Jefferson, Jackson, Hamilton and Franklin Counties. Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems, hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. 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. 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 the Macedonia Post Office or call our water operator, James Parkhill, at 618-237-7745. If you would like 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>

Source Water Information

Source Water Name: CC01 – Macedona Master Meter FF IL0555100 TP02

Type of Water: Surface Water (SW)

Location: 3.75 Miles north of Village of Macedonia

2023 Regulated Contaminants Detected

The next several tables summarize contaminants detected in your drinking water supply. Since water is purchased from Rend Lake Intercity Water System (IL0555100), results with an **asterisk (*)** were provided by them.

Lead and Copper (Rend Lake System Data)*

Date Sampled: 2023

Definitions: Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	0 ppb	0	1.3 ppm	1.3 ppm	0.0524	0	Corrosion of household plumbing systems; Erosion of natural deposits

Lead and Copper (Macedonia System Data)

Date Sampled: 9/10/2022

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb			1.3 ppm	1.3 ppm	0.066	0	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation. **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology. **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **N/A:** not applicable. **Avg.:** Regulatory compliance with some MCL's is based on running annual average of monthly samples. **Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. **pCi/L:** Picocuries per Liter (a measure of radioactivity)

Regulated Contaminants

<i>Disinfectants & Disinfection By-Products</i>	<i>Collection Date</i>	<i>Highest Level Detected</i>	<i>Range of Levels Detected</i>	<i>MCLG</i>	<i>MCL</i>	<i>Units</i>	<i>Violation</i>	<i>Likely Source Of Contaminant</i>
*Rend Lake Intercity Water System Data								
Total Haloacetic Acids (HAA5)*	2023	20	11 - 23.5	N/A	60	ppb	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) *	2023	41	22.3 - 56.7	N/A	80	ppb	No	By-product of drinking water chlorination
Chlorite*	2023	0.54	0.26 - 0.54	0.8	1	ppm	No	By-product of drinking water chlorination
Chloramines*	2023	3.0	2.6 - 3.2	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Chloramines (Macedonia)	2023	2.9	2.8 - 3.0	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Total Haloacetic Acids (HAA5) (Macedonia)	2023	36	36 - 36	N/A	60	ppb	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (Macedonia)	2023	63	62.6 - 62.6	N/A	80	ppb	No	By-product of drinking water chlorination
<i>Inorganic Contaminants</i>	<i>Collection Date</i>	<i>Highest Level Detected</i>	<i>Range of Levels Detected</i>	<i>MCLG</i>	<i>MCL</i>	<i>Units</i>	<i>Violation</i>	<i>Likely Source Of Contaminant</i>
Barium*	2023	0.0126	0.0126 - 0.0126	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Arsenic*	2023	1.28	1.28 - 1.28	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes

<i>Inorganic Contaminants (continued)</i>	<i>Collection Date</i>	<i>Highest Level Detected</i>	<i>Range of Levels Detected</i>	<i>MCLG</i>	<i>MCL</i>	<i>Units</i>	<i>Violation</i>	<i>Likely Source Of Contaminant</i>
Fluoride*	2023	0.69	0.69 – 0.69	4	4	ppm	No	<i>Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer or Aluminum Factory discharge</i>
Sodium*	2023	20.6	20.6 – 20.6			ppm	No	<i>Erosion from naturally occurring deposits. Used in water softener regeneration</i>

The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

<i>Radioactive Contaminants</i>	<i>Collection Date</i>	<i>Highest Level Detected</i>	<i>Range of Levels Detected</i>	<i>MCLG</i>	<i>MCL</i>	<i>Units</i>	<i>Violation</i>	<i>Likely Source Of Contaminant</i>
Combined Radium 226/228*	1/22/2020	0.86	0.86 - 0.86	0	5	pCi/L	No	<i>Erosion of naturally occurring deposits</i>
Gross alpha excluding radon and uranium*	1/22/2020	0.12	0.12 – 0.12	0	15	pCi/L	No	<i>Erosion of naturally occurring deposits</i>

Turbidity (Rend Lake System Data)

Turbidity Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Definitions: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

NTU – Nephelometric Turbidity Units

Lowest Monthly % meeting limit	Limit (Treatment Technique)	Violation	Source
100%	0.3 NTU	No	Soil Runoff
Highest Single Measurement	Limit (Treatment Technique)	Violation	Source
0.39	1 NTU	No	Soil Runoff

Total Organic Carbon The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violation sections.

Violations Table

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Lead Consumer Notice	12/30/22	6/16/23	We failed to provide the results of lead tap water monitoring to the consumers at the location where the water was tested. These were supposed to be provided no later than 30 days after learning the results.
Corrective Action Taken	Lead Consumer Notice: The monitoring results were mailed to the location where the water was tested and the Lead Consumer Information Notice Form was sent to the IEPA.		