

Annual Drinking Water Quality Report

MACEDONIA WATER SYSTEM

IL0554640

Annual Water Quality Report for the period of January 1 to December 31, 2024

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.

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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).

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 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 – Macedonia Master Meter FF IL0555100 TP02

Type of Water: Surface Water (SW)

Location: 3.75 Miles north of Village of Macedonia

2024 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

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. Rend Lake Intercity Water System is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Rend Lake Intercity Water System at 618-439-4394. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available at: <http://www.epa.gov/safewater/lead>

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.

To obtain a copy of the system's lead tap sampling data, please call Tony Furlow, Water / Sewer Manager, at 618-439-4394 ext. 222.

Our community water supply has developed a service line material inventory. To obtain a copy of our service line inventory, please visit: <https://rendlake.org/wp-content/uploads/2024/04/IEPA-2024-Final-Material-Inventory-Macedonia.pdf>

Lead and Copper Results

Year Sampled: 2022 (Triennial)

Copper Range: Non-detect (ND) to 0.088 ppm

Lead Range: All samples were Non-detect (ND)

| 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)* | 2024 | 26 | 10 – 37 | N/A | 60 | ppb | No | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHM) * | 2024 | 40 | 20.9 – 64 | N/A | 80 | ppb | No | By-product of drinking water chlorination |
| Chlorite* | 2024 | 0.55 | 0.26 – 0.55 | 0.8 | 1 | ppm | No | By-product of drinking water chlorination |
| Chloramines* | 2024 | 3.0 | 2.84 – 3.3 | MRDLG=4 | MRDL=4 | ppm | No | Water additive used to control microbes |
| Chloramines (Macedonia) | 2024 | 2.9 | 2.8 – 3.0 | MRDLG=4 | MRDL=4 | ppm | No | Water additive used to control microbes |
| Total Haloacetic Acids (HAA5) (Macedonia) | 2024 | 39 | 39 - 39 | N/A | 60 | ppb | No | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHM) (Macedonia) | 2024 | 76 | 76 – 76 | 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* | 2024 | 0.0116 | 0.0116 – 0.0116 | 2 | 2 | ppm | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Arsenic* | 2024 | 2 | 1.93 – 1.93 | 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* | 2024 | 0.7 | 0.66 – 0.66 | 4 | 4 | ppm | No | <i>Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer or Aluminum Factory discharge</i> |
| Sodium* | 2024 | 23 | 22.9 – 22.9 | | | ppm | No | <i>Erosion from naturally occurring deposits. Used in water softener regeneration</i> |
| <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> | | | | | | | | |

| <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.

NTU – Nephelometric Turbidity Units

| | <i>Limit (Treatment Technique)</i> | <i>Level Detected</i> | <i>Violation</i> | <i>Source</i> |
|---------------------------------------|--|-----------------------|------------------|---------------|
| <i>Lowest monthly % meeting limit</i> | 0.3 NTU | 99.5% | No | Soil runoff |
| <i>Highest single measurement</i> | 1 NTU | 0.44 NTU | No | Soil runoff |

Violations

There were no violations for Macedonia Water System in 2024.