ANNUAL WATER QUALITY REPORT

Reporting Year 2025



Presented By

Rend Lake Intercity Water System

REND LAKE CONSERVANCY DISTRICT

PWS ID#: IL0555100

Introduction

We are pleased to present to you this year's annual water quality report for January 1 to December 31, 2025. This report is intended to provide you with important information about your drinking water and the efforts made by the Rend Lake Intercity Water System to provide safe drinking water.

50th Anniversary for Rend Lake Golf Course

In 2026, the RLCD will celebrate the 50th anniversary of the opening of the Rend Lake Golf Course. The original course layout included 18 holes and was expanded to 27 holes in 1994. During its history, the RLCD has added lodging, which makes the golf course a weekend destination for visitors throughout the Midwest. To celebrate this achievement, the RLCD will kick off the Fourth of July weekend with a ceremony, followed by family-friendly events to include a robust fireworks show that is expected to draw visitors from throughout the region.

Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.



Where Does My Water Come From?

The source of drinking water used by Rend Lake Intercity Water System is surface water.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (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 at (800) 426-4791 or epa.gov/safewater.

Questions?

For more information regarding this report, please contact Tony Furlow at (618) 439-4394.

Substances That Could Be in 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 occur naturally in the soil or groundwater or may result from urban stormwater 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 stormwater 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 stormwater runoff, and septic systems; and

Radioactive Contaminants, which can occur naturally or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by contacting the U.S. EPA by calling the Safe Drinking Water Hotline at (800) 426-4791 or visiting epa.gov/safewater.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Rend Lake Conservancy District (RLCD) Board of Trustees meets the fourth Monday of each month at the Rend Lake Event Center, 14967 Gun Creek Trail, Whittington. Meeting agendas and minutes are posted at rendlake.org. For more information, please contact the administrative office at (618) 439-4321.

Lead in Home Plumbing

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, or 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 it tested, contact the 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 epa.gov/safewater/lead.

Our community water supply has developed a service line material inventory. To obtain a copy of our service line inventory, please visit rendlake.org/wp-content/uploads/2024/07/RLCD-MATERIAL-INVENTORY-FINAL-2024.pdf.

Source Water Assessment

Rend Lake Intercity Water System (Facility #IL0555100) provides water to communities in Franklin, Jefferson, Williamson, Perry, Hamilton, Saline, Jackson, Washington, White and Marion Counties. This facility draws water from Rend Lake through one surface water intake (IEPA #IN70290). The supply provides approximately 15 million gallons per day (GPD) to 67 satellite supplies with an estimated population of 190,000 people. Illinois Environmental Protection Agency (IEPA) 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. Our surface supply location is intake (70290) Rend Lake surface.

The source water assessment for our supply has been completed by the IEPA. If you would like to view a summary version of the completed source water assessment, including the importance of source water, susceptibility to contamination determination, and documentation/recommendations of source water protection efforts, you may access the IEPA website at epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

Water System Treatment Process

Rend Lake water is purified by a complex, time-tested treatment process supervised by highly skilled treatment plant operators. The process begins at the lake, where water flows into a collection tank through a fine mesh screen, which removes fish and large debris. Low-service pumps operating at 300 horsepower (HP) lift the water from the tank and pump it toward the treatment plant through a steel water pipe. While the water moves through the pipe, various chemicals are added to start the purification process. These chemicals include chlorine dioxide for disinfection, powdered activated carbon for removal of taste and odor compounds, and ferric chloride for removing unwanted solids. All chemicals used by the treatment plant are federally regulated and approved for drinking water use.

Once the water enters the treatment plant, hydrated lime and polymer are added to aid removal of solids. The water, now containing all chemicals needed for solids removal, travels to the clarifier tanks. These specialized tanks mix the water and chemicals, causing the solids to clump into large particles that settle by gravity to the bottom of the tanks, where they will be removed from the process by automated valves. The solids eventually flow into large ponds and are hauled away for environmentally friendly reuse helping adjust pH at industrial sites. Before the cleaned water exits the clarifiers, it leaves behind over 75 percent of its unwanted solids.

The water leaving the clarifiers has a very high pH and some leftover activated lime. To adjust the pH and deactivate the lime, carbon dioxide is added just prior to entering another pipe that carries the water to anthracite and silica sand gravity filters. Along the way, a very small amount of bleach and polymer are added to remove any disease-causing microorganisms and help the filters remove the remaining 25 percent of unwanted solids.

At this point in the process, the water is nearly ready to drink. Once the filters have removed the rest of the solids, bleach and ammonium sulfate are added to remove any remaining microorganisms and ensure that your water is protected while it is pumped from the plant to your faucet. We also add a very small amount of fluoride to help protect your teeth. Our plant carefully monitors and adjusts fluoride concentrations to maintain the optimal range of 0.7 mg/L, as recommended by the Illinois Department of Public Health.

The final stop at the treatment plant is two large storage tanks, each containing three million gallons. Powerful 600-HP high-service pumps pull water from these storage tanks and push thousands of gallons each minute at pressures as high as 120 pounds per square inch into the distribution system pipes and eventually to your home.

PFAS Sampling Results

As part of our compliance with the U.S. EPA's PFAS National Primary Drinking Water Regulation, we completed all four quarters of per- and polyfluoroalkyl substance (PFAS) monitoring in 2024-2025. None of the six regulated PFAS were detected in our drinking water.

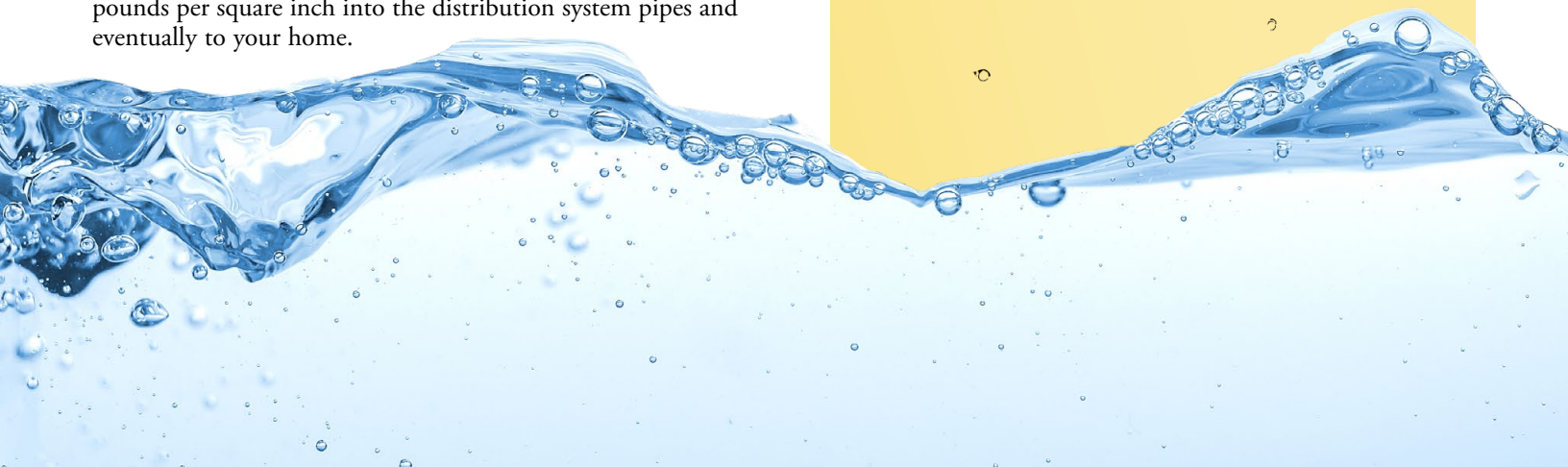
PFAS are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit bit.ly/3Z5AMm8.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by IEPA.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2020	15	0	0.12	NA	No	Erosion of natural deposits
Arsenic (ppb)	2025	10	0	2.19	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2025	3	3	0.16	NA	No	Runoff from herbicide used on row crops
Barium (ppm)	2025	2	2	0.0235	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines (ppm)	2025	[4]	[4]	3.1	2.85–3.25	No	Water additive used to control microbes
Chlorite (ppm)	2025	1	0.8	0.44	0.12–0.44	No	By-product of drinking water disinfection
Combined Radium (pCi/L)	2020	5	0	0.86	NA	No	Erosion of natural deposits
Fluoride (ppm)	2025	4	4	0.7	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA5] (ppb)	2025	60	NA	32	17.6–42.6	No	By-product of drinking water disinfection
Nitrate (ppm)	2025	10	10	0.12	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	2025	NS[1]	NA	18.6	NA	No	Erosion of naturally occurring deposits; Used in water softener regeneration
Total Trihalomethanes [TTHMs] (ppb)	2025	80[2]	NA	51	29–80.4	No	By-product of drinking water disinfection
Turbidity[3] (NTU)	2025	TT	NA	0.3	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2025	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community[4]

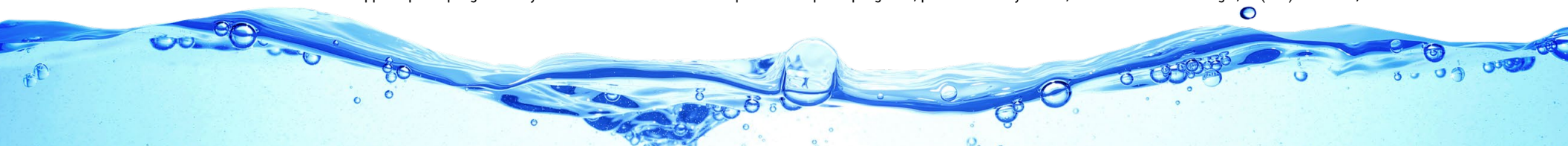
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	1.3	0.0524	ND–0.0584	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2023	15	0	ND	ND– ND	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits

[1] Sodium is not currently regulated by the U.S. EPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

[2] Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

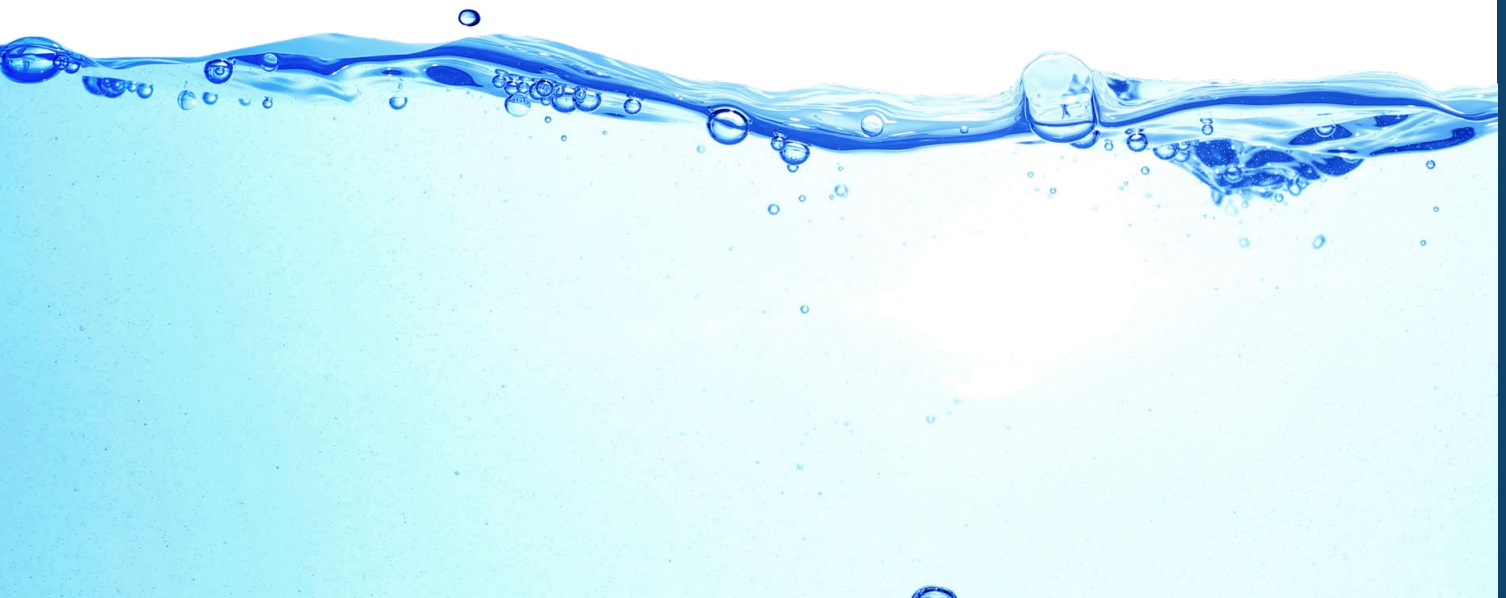
[3] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[4] This table summarizes our most recent lead and copper tap sampling data. If you would like to review the complete lead tap sampling data, please call Tony Furlow, Water and Sewer Manager, at (618) 439-4394, ext. 222.



About Our Violations

CONTAMINANT	HEALTH EFFECTS	VIOLATION TYPE	VIOLATION BEGIN	VIOLATION END	VIOLATION EXPLANATION	CORRECTIVE ACTION TAKEN
Atrazine	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.	Monitoring, Routine Major	7/1/2025	9/30/2025	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.	We collected the required sample during the compliance monitoring period as mandated; however, the sample result was not certified due to a laboratory error and replacement bottles were not sent to us in time to collect new samples prior to the end of the monitoring period. This error affected several water systems in addition to Rend Lake Intercity Water System. We collected samples for the following monitoring period as scheduled and all results were within EPA regulatory guidelines.
Chlorite	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.	Monitoring, Routine (DPB), Major	8/1/2025	8/31/2025	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.	We collected the required samples during the compliance monitoring period as mandated; however, the samples were not analyzed by the lab and the replacement bottles were not sent to us in time to collect new samples prior to the end of the monitoring period. We collected the following month's samples less than a week after the end of this monitoring period and all results were within EPA regulatory guidelines.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

Herbicide: Any chemical(s) used to control undesirable vegetation.

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 (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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant 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: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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