ANNUAL WATER QUALITY REPORT

Reporting Year 2025

Presented By

City of Knoxville

PWS ID#: IL0950300

Our Commitment

The Water Division is committed to providing our customers with the best water possible, safe to drink and aesthetically pleasing. In 2025, as in previous years, your drinking water was tested in accordance with health standards set by regulatory agencies. Those agencies are the U. S. Environmental Protection Agency (U.S. EPA) and the Illinois Environmental Protection Agency (IEPA).

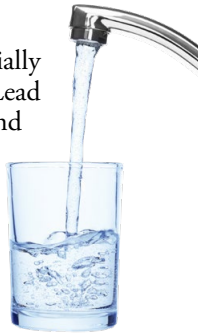
Where Does My Water Come From?

In March 2004, the city started purchasing its water from the City of Galesburg. In the 1950s, the City of Galesburg, with the vision of providing better water, made the decision to abandon its deep wells in Galesburg and start obtaining groundwater from an aquifer located near Oquawka. An aquifer is an underground geological formation that contains water. A collector well and three drilled, gravel-packed wells withdraw groundwater from the aquifer along the Mississippi River. The City of Galesburg maintains two deep wells at its treatment facility that are for emergency use only. The City of Knoxville maintains three of its wells located near the Water Department facility in Knoxville. These wells are operational but for emergency use only.

Water Treatment Process

In 2010 a new water treatment facility was completed near the Galesburg wells. In the effort to supply you with the safest drinking water possible, their treatment process involves several steps. The water is filtered to remove iron and manganese, which will stain laundry and plumbing fixtures. The water is chlorinated for disinfection of bacteria and viruses that may be present. Fluoride is added to help promote strong teeth. A phosphate inhibitor is added for corrosion control of lead and copper. The concentrations of these additives are monitored daily in our laboratory to ensure the proper dosages are being added. The laboratory is also state-certified to test water for bacteria.

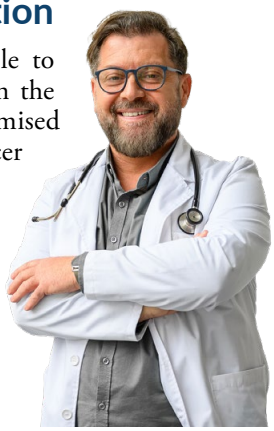
Lead in Home Plumbing



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. Knoxville 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 Pace Analytical at (800) 752-6651. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. To obtain a copy of the system's inventory, email your request to mikejohnson3097@gmail.com. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

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. 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.

PFAS Sampling Initiative

In 2025 our public water system was sampled as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated six per- and polyfluoroalkyl substances (PFAS) in our drinking water, with detections in the wells and tap water being above and below the health advisory levels established by IEPA. Follow-up monitoring is being conducted. For more information about PFAS health advisories, visit https://epa.illinois.gov/topics/water-quality/pfas/pfas-healthadvisory.html.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Mike Johnson, Water Superintendent, at (309) 289-2512.

Source Water Assessment

A source water assessment has been completed for our system. The purpose of the assessment is to determine the susceptibility of each drinking water source to potential contaminant sources. The report includes background information and a relative susceptibility rating of higher, moderate, or lower. It is important to understand that a higher susceptibility rating does not imply poor water quality, only the system's potential to become contaminated within the assessment area.

Susceptibility to Contamination

To determine the City of Galesburg's susceptibility to groundwater contamination, the IEPA reviewed an engineering report for the City of Galesburg. Based on this document and water quality monitoring data, this community water supply's source water is susceptible to synthetic organic compound (SOC) and volatile organic compound (VOC) contamination. As a result of monitoring conducted at the wells and the entry point to the distribution system, the land use activities, and the source water protection initiatives by the city, the City of Galesburg's source water is not susceptible to inorganic chemical contamination (IOC).

Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the IEPA has determined that the City of Galesburg's wells are not vulnerable to viral contamination. This determination is based on the evaluation of the following criteria during the vulnerability waiver process: The community's wells are properly constructed with sound integrity and proper site conditions, a hydrogeologic barrier exists that prevents pathogen movement, all potential routes and sanitary defects have been mitigated such that the source water is adequately protected, monitoring data did not indicate a history of disease outbreak, and the sanitary survey of the water supply did not indicate a viral contamination threat. However, having stated this, the "U.S. EPA is proposing to require States to identify systems in karst, gravel, and fractured rock aquifer systems as sensitive and these systems must perform routine source water monitoring." Because some of the community's wells are constructed in an unconfined sand-and-gravel aquifer, the IEPA evaluated the well hydraulics associated with the City of Galesburg's well field. The wells have between 74 and 2,094 feet of overburden. This should provide an adequate degree of filtration to prevent the movement of pathogens into the wells.

Source Water Protection Efforts

The Illinois Environmental Protection Act provides minimum protection zones of 400 and 200 feet for the City of Galesburg's wells. The IEPA regulates these minimum protection zones. To further reduce the risk to the source water, the facility has implemented a wellhead protection program, which includes a management and education committee, source water protection management strategies, and contingency planning. This effort resulted in the community water supply receiving a special exception permit from the IEPA, which allows a reduction in the SOC and VOC monitoring. The outcome of this monitoring reduction has saved the facility considerable laboratory analysis costs.

Further information on our community water supply's source water assessment is available on the U.S. Geological Survey (USGS) website at https://waterdata.usgs.gov/state/Illinois/ or by calling the Groundwater Section of the IEPA at (217) 785-4787.

Substances That Could Be in Water

> **"Water is the driving force of all nature."**
>
> *–Leonardo da Vinci*

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 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. We meet the first and third Monday of every month at City Hall, 33 North Public Square.

Test Results

As our customer, we would like you to fully understand the efforts we make to provide safe water. It is our belief that an informed customer is our best ally. This report summarizes the quality of water that we provided in 2025, including details about where your water comes from, what it contains, and how it compares to federal and state health standards. The source of drinking water used by Knoxville is purchased groundwater.

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

				City of Knoxville		City of Galesburg			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters [excluding radon and uranium] (pCi/L)	2023	15	0	13.2	3.05–13.2	ND[1]	NA	No	Erosion of natural deposits
Barium (ppm)	2023	2	2	0.04	0.015–0.04	0.040[1]	0.015–0.04[1]	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Benzo(a)pyrene [PAH] (ppt)	2024	200	0	200	ND–400	NA	NA	No	Leaching from linings of water storage tanks and distribution lines
Chlorine (ppm)	2025	[4]	[4]	1.3	1–1.4	NA	NA	No	Water additive used to control microbes
Chromium (ppb)	2023	100	100	5.4	ND–5.4	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Combined Radium (pCi/L)	2023	5	0	7.6	2.13–7.6	4.2[1]	NA[1]	No	Erosion of natural deposits
Fluoride (ppm)	2023	4	4	2.05	ND–2.05	1.86[1]	0.77–1.86[1]	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA5] (ppb)	2025	60	NA	23	21.9–23.2	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2025	10	10	NA	NA	1.5	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2023	50	50	2.8	1.7–2.8	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Total Trihalomethanes [TTHMs] (ppb)	2025	80	NA	43	39.5–43	NA	NA	No	By-product of drinking water disinfection

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.

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).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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)	2025	1.3	1.3	0.16	ND–0.16	0/19	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2025	15	0	1.1	ND–1.1	0/19	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

		City of Knoxville					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2023	300	NA	5,300	910–5,300	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2023	50	NA	35	2.5–35	No	Leaching from natural deposits
Zinc (ppm)	2023	5	NA	0.11	ND–0.11	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES[5]

		City of Knoxville		City of Galesburg		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppb)	06/08/2023	310	120–310	290[6]	10–290[6]	Erosion from naturally occurring deposits; Used in water softener regeneration

[1] Sampled in 2024.
[2] Sampled in 2021.
[3] Sampled in 2025.
[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 email mikejohnson3097@gmail.com.
[5] An MCL for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
[6] Sampled August 20, 2024.