Consumer Confidence Report – 2025
Covering Calendar Year – 2024

Summary

This report is a snapshot of the quality of the water that we provided to our customers last year. **The City of Lawrence's water quality consistently meets or exceeds all Federal and State standards for safe drinking water. We had no violations or action level exceedances in 2024. Public notifications of violations are often included in Consumer Confidence Reports, the City of Lawrence had no situations requiring public notification in 2024.** Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. For more information or to request a paper copy of this report please contact Joshua Toevs at 785-813-9305. Please share this information with anyone who drinks this water (or their guardians), especially those who may not have received this report directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this report in a public place or distributing copies by hand, mail, email, or another method.

Sources of Drinking Water

The City of Lawrence has two major surface water sources: the Kansas River and Clinton Lake. Occasionally, water is also drawn from 6 Ground Water Wells. The Kansas Department of Health and Environment (KDHE) has evaluated these sources of water and found them to be sufficient. Please contact KDHE for the source water report.

Treatment of Source Water

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. The City of Lawrence treats the source water according to EPA regulations by removing contaminants and disinfecting to protect you against microbial contaminants. 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 Environmental Protection Agency by calling the Safe Drinking Water Hotline (800-426-4791) or visiting the website *epa.gov/safewater.*

Water Contaminants

The source of drinking water includes 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 before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or 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 stormwater run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban stormwater run-off, and septic systems.

Our water system is required to test a minimum of 100 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indicator of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this is exceeded, the water supplier must notify the public.

PFAS and UCMR5: The EPA requires water systems to monitor periodically for unregulated contaminants, during calendar year 2023 the city monitored for 29 PFAS compounds and Lithium. The results are included in this report in the unregulated contaminants section. Lithium and 2 of the 29 PFAS compounds were detected.

Lead and Copper: Corrosion of pipes, plumbing fittings and fixtures may cause metals, including lead and copper, to enter drinking water. To assess corrosion of lead and copper, the City of Lawrence conducts tap sampling for lead and copper at selected sites every three years. The City of Lawrence also treats water using pH adjustment, alkalinity adjustment, and corrosion inhibitor addition to control corrosion. A lead service line inventory has been prepared and is viewable at:

https://lawrenceks.maps.arcgis.com/apps/webappviewer/index.html?id=5fa4d20aa2314e20a5630153020a7cbf

For Customers with Special Health Concerns

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 (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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).

Taste and Odor: Occasionally Lawrence's source water may have an effect on the smell, taste, or appearance of your drinking water. None of the contaminants that could affect your health can be tasted in drinking water. The three most common reasons for bad tasting or smelling water are:

- A funny taste can come from disinfectant that is added to the water to kill germs.
- A rotten-egg odor in some groundwater is caused by a nontoxic (in small amounts), smelly chemical – hydrogen sulfide – dissolved in the water.
- As algae, fungi, and bacteria grow in surface water sources, they give off nontoxic, smelly chemicals that can cause unpleasant tastes in water.

You can find additional information about your drinking water at: https://lawrenceks.org/mso/annual-reports/

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.
Maximum Contaminant Level (MCL): The "Maximum Allowed" MCL is 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.
Secondary Maximum Contaminant Level (SMCL): Recommended level for a contaminant that is not regulated and has no MCL.
Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements.
Treatment Technique (TT): A required process intended to reduce levels of a contaminant in drinking water.
Locational Running Annual Average (LRAA): An average of sample results obtained over the most current 12 months at a sampling location and used to determine compliance with MCLs.
Maximum Residual Disinfectant Level (MRDL): 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.
Maximum Residual Disinfectant Level Goal (MRDLG): The highest level of a disinfectant below which there is no known or expected risk to health.
Monitoring Period Average (MPA): Average of samples results collected during a defined time frame.
Non-Detect (ND): Laboratory analysis indicates that the contaminant is not present.
Parts per Million (ppm) or milligrams per liter (mg/l): A measure of contaminant concentration.
Parts per Billion (ppb) or micrograms per liter (µg/l): A measure of contaminant concentration.
Parts per Trillion (ppt) or nanograms per liter (ng/l): A measure of contaminant concentration.
Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.
Picocuries per Liter (pCi/L): A measure of the radioactivity in water.
Micromhoms per centimeter (µmhos/cm): A measure of the ability to carry electric current.
Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Running Annual Average (RAA): An average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.
Standard Units (S.U.): A measuring unit for pH, based on hydrogen ion concentration.
Herbicide: Any chemical(s) used to control undesirable vegetation.
Contaminant: Any physical, chemical, biological, or radiological substance or matter in water.

Water Quality Data: The following tables list all of the drinking water contaminants that were detected during the 2024 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Other contaminants were tested but were not detected. Unless noted, the data presented in this table is from the testing done January 1 - December 31, 2024. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year; therefore some of the data, though representative of the water quality, is more than one year old.

Testing Results for: City of Lawrence

(During the 2024 calendar year, there were no violations of drinking water regulations)

Microbiological	Highest Value Detected	Level 1 Assessment Trigger	Typical Source
Total Coliform bacteria	0.97% of samples were positive in July of 2024.	More than 5 % of all samples in a calendar month are positive.	Naturally present in the environment
A minimum of 100 samples are collected and tested each month throughout the distribution system.			

Regulated Contaminants	Collection Date	Your Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
2,4-D	8/22/24	0.24	ND – 0.24	ppb	70	70	Runoff from herbicide used on row Crops.
ASBESTOS	1/25/22	ND	NA	MF/L	7	7	Decay of asbestos water main
ARSENIC	8/22/24	1.2	ND – 1.2	ppb	10	0	Erosion of natural deposits
ATRAZINE	5/16/24	0.16	ND – 0.16	ppb	3	3	Runoff from herbicide used on row crops
BARIUM[1]	5/16/24	0.065	0.021 – 0.065	ppm	2	2	Industrial discharge from drilling and metal refineries. Erosion of natural deposits
CHROMIUM	5/16/24	2.80	ND – 2.80	ppb	100	100	Erosion of natural deposits or steel and pulp
FLUORIDE	7/10/24	0.78	ND – 0.78	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
NITRATE	05/16/24	0.93	ND – 0.93	ppm	10	10	Runoff from fertilizer use. Naturally present in the environment
SELENIUM	4/4/24	1.10	ND – 1.10	ppb	50	50	Discharge from petroleum, metal, and mine industries. Erosion of natural deposits
TURBIDITY[2]	11/21/24	0.218	0.061 – 0.218	NTU	1		Soil runoff
CHLORAMINE	2024	3.48 (RAA)	2.0– 4.5	ppm	4 (MRDL)	4 (MRDLG)	Additive to control microbes
	2024	3.77 (MPA)					
TOTAL ORGANIC CARBON[3]	12/9/24	3.76	2.56 – 3.76	ppm	TT	NA	Naturally present in the environment

Clinton - Lowest Months Removal Ratios of Total Organic Carbon was April at 1.34. Removal Ratio must be at least 1.0.
Kaw - Lowest Months Removal Ratios of Total Organic Carbon was December at 1.13. Removal Ratio must be at least 1.0.

1. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
2. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, and diarrhea and associated headaches.
3. Total organic carbon has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include Total Trihalomethanes and Total Haloacetic acids.

Disinfection Byproducts	Monitoring Period	Your Highest LRAA	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS	2024	26.0	8.6 – 34.4	ppb	60	0	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES	2024	59.4	13.6 – 75.6	ppb	80	0	By-product of drinking water chlorination

Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

UCMR5	Monitoring Period	Your Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
PERFLUOROBUTANOIC ACID (PFBA)[1]	2023	11.0	ND – 11.0	ppt	NA	NA	Non-stick and stain-resistant consumer products, food packaging, fire-fighting foam, and industrial processes
PERFLUOROHEAXANESULFONIC ACID (PFHXS)[1]	2023	4.2	ND – 4.2	ppt	10	10	Wide range of industrial processes and consumer products
LITHIUM	2023	27.3	0-27.3	ppb	NA	NA	Naturally present in the environment

1. PFBA and PFHxS in 2023 were unregulated containments; the EPA has finalized a drinking water regulation regarding PFAS. (https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas)
PFHxS is below the MCL set for this drinking water regulation, and PFBA is not identified as a regulated contaminant. For additional information regarding PFAS and these detections, please visit https://lawrenceks.org/mso/pfas/

Lead and Copper	Monitoring Period	90th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source

COPPER, FREE	2021-2023	0.169	0.025 – 0.221	ppm	1.30	0	Corrosion of household plumbing
LEAD	2021-2023	3.3	ND – 4.8	ppb	15	0	Corrosion of household plumbing

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. Your water system is responsible for providing high quality drinking water, but 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.

Radiological Contaminants	Collection Date	Your Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
RADIUM 228	9/14/2020	ND	ND	pCi/L	5	0	Erosion of natural deposits
GROSS ALPHA & BETA	9/14/2020	1.00	ND - 1.00	pCi/L	15	0	Erosion of natural deposits

Constituents Having Secondary MCL's	Collection Date	Your Highest Value	Range (low/high)	Unit	SMCL
ALUMINUM	8/22/24	0.016	ND – 0.016	ppm	0.05
CHLORIDE	4/4/24	120	21 – 120	ppm	250
HYDROGEN ION (pH)	3/14/24	9.1	7.7 – 9.1	S.U.	8.5
IRON	2/22/24	0.02	ND-0.02	ppm	0.3
SULFATE	8/22/24	130	23.0-130	ppm	250
Total Dissolved Solids (TDS)	4/4/24	460	190-460	ppm	500

UNREGULATED PARAMETERS	FEDERAL LEVEL RECOMMENDED	Your Highest Value	Range (low/high)	Unit	TYPICAL SOURCE
Unregulated Parameters are monitored in the interest of the customers and sometimes to assist regulators in developing future regulations					
ALKALINITY, TOTAL as **$CaCO_3$**	300	142	52 - 142	ppm	Erosion of natural deposits
BROMIDE	0.05	0.07	0.02 – 0.07	ppm	Erosion of natural deposits
CALCIUM	200	46	27 - 46	ppm	Erosion of natural deposits
CONDUCTIVITY @ 25 °C	1500	822	154-822	µmhos/cm	Erosion of natural deposits
COPPER	1.3	0.010	ND – 0.010	ppm	Corrosion of household plumbing
CORROSIVITY	NA	0.60	0.08-0.60	LANG	
Dicamba	NA	0.6	ND-0.6	ppb	Runoff from herbicide used on row crops
HARDNESS, CALCIUM as **$CaCO_3$**	NA	128	66 - 128	ppm	Erosion of natural deposits
HARDNESS, MAGNESIUM as **$CaCO_3$**	NA	62	6.9 - 62	ppm	Erosion of natural deposits
HARDNESS, TOTAL as **$CaCO_3$**	400	166	80 - 166	ppm	Erosion of natural deposits
HEXAVALENT CHROMIUM	NA	2.2	0.04 – 2.20	ppb	Erosion of natural deposits. Used to make steel and alloys, chrome plating, dyes, leather tanning and wood preservation
MAGNESIUM	150	15	1.7-15	ppm	Erosion of natural deposits
MOLYBDENUM	NA	5.20	ND – 5.20	ppb	Erosion of natural deposits. Industrial use form molybdenum trioxide used as a chemical reagent
NICKEL	0.1	0.0051	ND – 0.0051	ppm	Erosion of natural deposits
ORTHOPHOSPHATE	NA	0.27	ND – 0.27	ppm	Additive to control pipe corrosion
PERCHLORATE	56	0.84	ND – 0.84	ppb	Both natural and manmade sources. It is formed naturally via atmospheric processes and can be found within mineral deposits in certain geographical areas.
PHOSPHORUS, TOTAL	5	0.39	0.13 – 0.39	ppm	Erosion of natural deposits
POTASSIUM	100	10.0	3.30 – 10.0	ppm	Erosion of natural deposits
SILICA	50	10	0.43 – 10	ppm	Erosion of natural deposits
SODIUM	100	96	19.0 – 96.0	ppm	Erosion of natural deposits
STRONTIUM	NA	400	210 - 400	ppb	Erosion of natural deposits. Industrial use in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
VANADIUM	NA	3.7	ND – 3.7	ppb	Erosion of natural deposits. Industrial use as vanadium pentoxide which is a chemical intermediate and a catalyst