

## ? QUESTIONS ABOUT THIS REPORT?

Contact Kelley Dearing Smith, VP of Strategic Communications and Marketing, by phone at (502) 569-3695 or send an email to [ksmith@LouisvilleWater.com](mailto:ksmith@LouisvilleWater.com). To request a copy, email [questions@LouisvilleWater.com](mailto:questions@LouisvilleWater.com) or call (502) 583-6610.

## 👤 CUSTOMER INPUT

The Board of Water Works typically meets the third Tuesday of each month at 11 a.m. at 550 South Third Street in Louisville.

## 💧 WE LOVE TO TALK ABOUT WATER

Still curious about why Louisville Pure Tap® tastes so great? We'd love to tell you about the history, science, and innovation behind our award-winning water. To schedule a speaker for your school or organization, or to find out about our community education program, email [questions@LouisvilleWater.com](mailto:questions@LouisvilleWater.com).

## 💰 ACCOUNT SERVICES

Sign up for Louisville Water Pure Connect<sup>SM</sup> – an easy, convenient way to view and pay your bill. Learn more at [LouisvilleWater.com/PureConnect](http://LouisvilleWater.com/PureConnect). You can also access your account by phone at (502) 583-6610 or toll free at (888) 535-6262. Customer Service agents are available by phone Monday – Friday from 8 a.m. - 6 p.m. Please have your account number ready.

## 🚶 WALK-IN CUSTOMER SERVICE

Monday - Friday  
8 a.m. - 4:30 p.m.  
John L. Huber Building  
550 South Third Street  
Louisville, KY 40202

Monday - Friday  
8 a.m. - 1 p.m. & 1:30 - 4 p.m.  
Shepherdsville Govt. Center  
634 Conestoga Parkway  
Shepherdsville, KY 40165



# WATER QUALITY REPORT

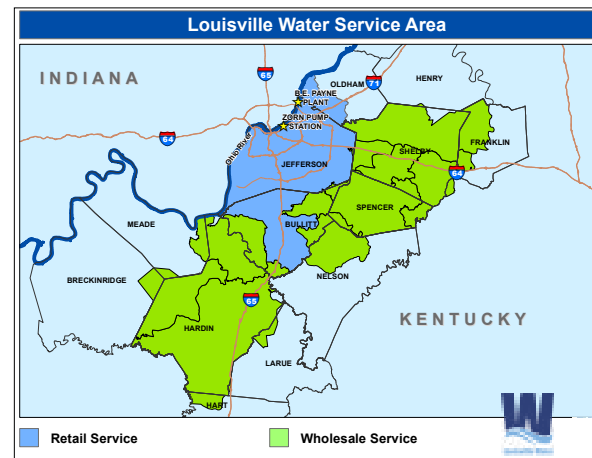


## ABOUT YOUR DRINKING WATER

Louisville Water Company's Annual Water Quality Report is a great resource to learn about your drinking water—Louisville Pure Tap®. Louisville Water prepares this report to meet Environmental Protection Agency (EPA) requirements under the Safe Drinking Water Act. We are proud to report that Louisville Water had zero water quality violations for the 16th consecutive year and meets all state and federal health standards. Louisville Water consistently ranks among the nation's top water utilities. We perform more than 200 tests every day to ensure you receive high-quality drinking water. It is tested at the treatment plants, throughout the distribution system, and at many customer taps. The data in this report shows some of the testing that we do.

### WHERE DOES MY DRINKING WATER COME FROM?

Louisville Water provides safe, high-quality drinking water to its customers. We are fortunate to have an abundant source: the Ohio River. Louisville Water is an anchor in the region, delivering water to nearly one million people in Louisville Metro and parts of Bullitt and Oldham counties. We operate two treatment plants. The majority of our drinking water comes from the Crescent Hill Water Treatment Plant, which treats water pumped directly from the Ohio River. The B.E. Payne Water Treatment Plant in eastern Jefferson County treats groundwater collected from the surrounding aquifer through a process called riverbank filtration.



### PROTECTING OUR SOURCE

Louisville Water maintains a Source Water Assessment and Protection Plan which outlines the steps to address potential sources of contamination along the Ohio River, such as hazardous materials spills. We also maintain a Wellhead Protection Plan that outlines contamination risks to our wellhead protection area. For questions about source water protection efforts, email us at [waterquality@LouisvilleWater.com](mailto:waterquality@LouisvilleWater.com).

### TREATMENT MODIFICATION

In spring 2023, Louisville Water adjusted its treatment strategy to continue to improve the quality of your drinking water. The process adds minimal levels of chlorine dioxide to the water at the B.E. Payne Water Treatment Plant. Chlorine dioxide is a form of chlorine used in the disinfection process. It helps ensure the water quality as it travels through water mains in our distribution system. You will not notice any changes in your drinking water. Louisville Water uses chlorine (sodium hypochlorite) as the primary disinfectant and chloramine as a secondary disinfectant.

Note: Customers on dialysis should contact their physician for the appropriate steps to accommodate the change in water treatment to include the addition of chlorine dioxide, as chlorine dioxide and its byproducts may have similar effects as chloramines. Customers who have fish tanks or keep aquatic species should contact their pet store or aquarium dealer to address any potential concerns with using chlorine dioxide in the water treatment process.



## MESSAGE FROM THE EPA

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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 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.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, 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 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.
- Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

*Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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 at (800) 426-4791.*

## TABLE DEFINITIONS

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

**BDL:** Below Detection Levels. Laboratory analysis indicates that the contaminant is not present.

**LRAA:** Locational Running Annual Average.

**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.

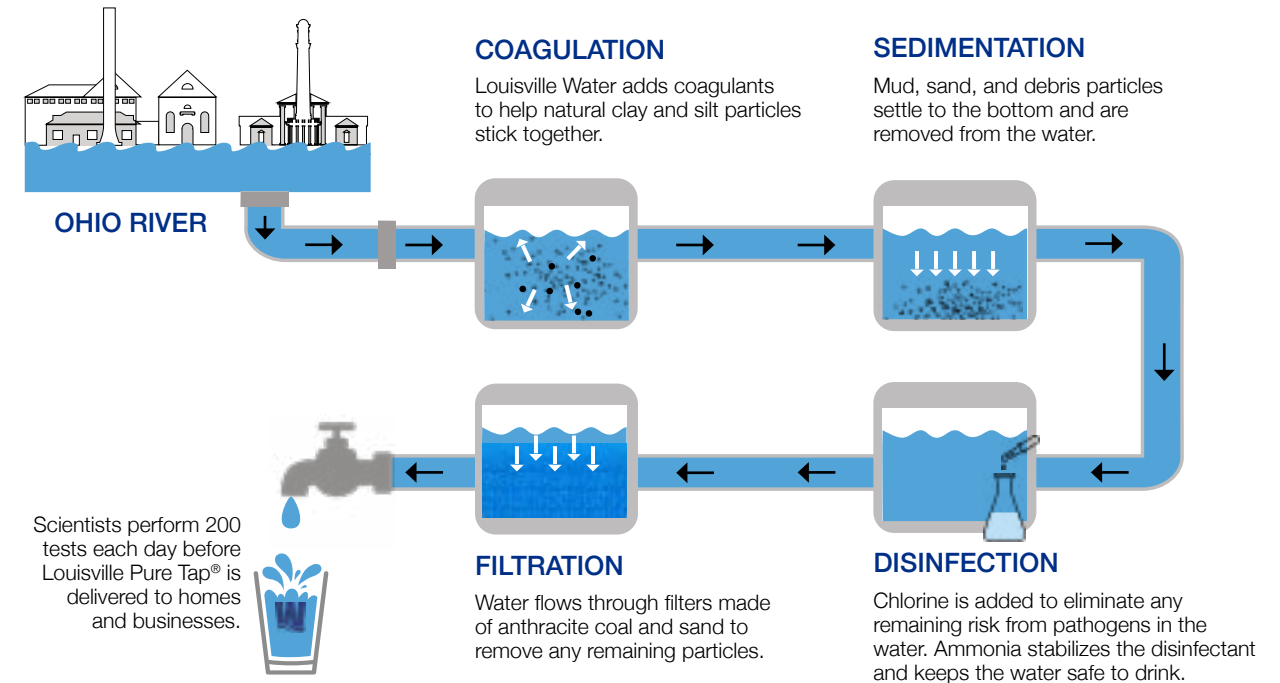
**MRDL:** Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**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.



## HOW WE MAKE SAFE DRINKING WATER - LOUISVILLE PURE TAP®

Our treatment plants are supplied by water directly from the Ohio River or from groundwater that is naturally filtered through the riverbank.



## ADDITIONAL WATER QUALITY DATA-2022\*

pH (SU)	8.7
Alkalinity (as CaCO <sub>3</sub> ) (ppm)	75
Hardness (as CaCO <sub>3</sub> ) (ppm)	135 (7.9 grains per gallon)
Calcium (as Ca) (ppm)	32
Magnesium (as Mg) (ppm)	13
Sodium (as Na) (ppm)	26
Chloride (ppm)	36
Sulfate (ppm)	59
Total Dissolved Solids (ppm)	228

\*These are an average of the concentrations in Crescent Hill and B.E. Payne finished water.

**n/a:** Not Applicable.

**NTU:** Nephelometric Turbidity Unit. A measure of the clarity of water.

**ppb:** Parts per billion or micrograms per liter, µg/L.

**ppm:** Parts per million or milligrams per liter, mg/L.

**RAA:** Running Annual Average.

**SU:** Standard Units.

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



## LOUISVILLE WATER COMPANY WATER QUALITY DATA JAN. 1 - DEC. 31, 2022

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

*Regulated Contaminants - Substances subjected to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT). These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health.*

### REGULATED SUBSTANCES - TREATMENT PLANTS

Substance (units)	MCL	MCLG	CRESCENT HILL WATER TREATMENT PLANT (CH)			B. E. PAYNE WATER TREATMENT PLANT (BEP)			Compliance Achieved	Typical Source of Contamination (for more details, visit <a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a> )	
			CH Average	Highest Level Detected	Range of Detections	BEP Average	Highest Level Detected	Range of Detections			
<b>INORGANIC</b>											
Fluoride (ppm)	4	4	0.64	0.64	one measure	0.69	0.69	one measure	YES	Additive that promotes strong teeth. Fertilizer & aluminum factories. Erosion of natural deposits.	
Nitrate (ppm)	10	10	0.88	0.99	0.77 - 0.99	0.20	0.38	BDL - 0.38	YES	Runoff from fertilizer & leaching from septic tanks. Erosion of natural deposits.	
Barium (ppm)	2	2	0.02	0.02	one measure	0.02	0.02	one measure	YES	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.	
Turbidity (NTU)	TT 100% ≤ 1.0 and 95% ≤ 0.3	n/a	0.05	0.08 (100% ≤ 0.3)	0.04 - 0.08	0.04	0.06 (100% ≤ 0.3)	0.03 - 0.06	YES	Soil runoff.	
<i>Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.</i>											
<b>ORGANIC</b>											
Total Organic Carbon (Removal Ratio)	TT (≥ 1.00)	n/a	1.37	Lowest RAA Removal Ratio 1.27		0.81 - 2.01	n/a	n/a	n/a	YES	Naturally present in the environment.

*Total Organic Carbon (TOC) occurs in source waters from natural substances such as decayed leaves and animal wastes. It can combine with chlorine used in disinfection to form disinfection by-products. TOC is measured in parts per million (ppm) but compliance with the treatment technique (TT) is based on a running annual average (RAA) of the monthly ratios of the percent TOC treatment removal compared to the required removal. A minimum annual average ratio of 1.00 is required. In 2022, Louisville Water met the TOC treatment technique requirement.*

### REGULATED SUBSTANCES - DISTRIBUTION SYSTEM

Substance (units)	MCL	MCLG	Highest Level Detected	Range of Detections	Compliance Achieved	Typical Source of Contamination (for more details, visit <a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a> )
Total Trihalomethanes (ppb)	80	n/a	32.8 (LRAA)	12.3 - 39.3	YES	By-product of drinking water disinfection.
Haloacetic Acids (ppb)	60	n/a	29.7 (LRAA)	5.5 - 30.9	YES	By-product of drinking water disinfection.
Chlorine Residual (Chloramines) (ppm)	MRDL = 4	MRDLG = 4	2.70 (RAA)	1.55 - 3.60	YES	Water additive used to control microbes.

### REGULATED SUBSTANCES - AT CUSTOMER'S TAP

Substance (units)	AL	MCLG	Highest Single Result	# Results Exceeding AL	90th Percentile	Range of Detections	Compliance Achieved	Typical Source of Contamination (for more details, visit <a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a> )
Copper (ppm)	AL 90% ≤ 1.3	1.3	0.091	0	0.051	0.007 - 0.091	YES	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead (ppb)	AL 90% ≤ 15	0	12.7	0	1.1	BDL - 12.7	YES	Corrosion of household plumbing systems. Erosion of natural deposits.

*Lead and copper results are from 2020 and the most recent required testing done in accordance with the regulation. All samples were taken at customers' taps meeting lead and copper plumbing and water holding time criteria. Fifty-three (53) sites were tested, zero (0) samples exceeded the Action Level for lead; zero (0) samples exceeded the Action Level for copper.*



## FOCUSING ON WATER QUALITY

### SUPERIOR WATER QUALITY



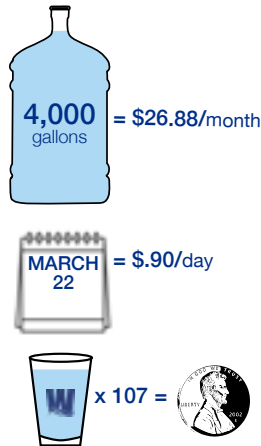
At Louisville Water, public health and maintaining your trust are paramount in what we do. Every day, we work to protect the safety of your drinking water.

Louisville Water operates an EPA-certified laboratory. Our scientists do an average of 200 tests daily on Louisville Pure Tap®.

We are dedicated to outstanding quality. We achieved all of our treatment and distribution water quality goals in 2022. Our treatment plants rank as two of the top 19 in North America for exceptional water quality. Louisville Water is one of only three systems nationally to have the highest honor for both its treatment and maintaining the high quality as the water travels to homes and businesses. These distinctions come from the Partnership for Safe Water, a collaboration with the American Water Works Association, the EPA, and other water organizations.

### HIGH QUALITY, GOOD VALUE

Not only is Pure Tap high in quality, it's a good value. Louisville Water crunched the numbers. A customer who uses 4,000 gallons a month pays an average of \$26.88 a month which breaks down to 90 cents per day for drinking, cooking, showering, washing clothes, and more. Thirsty? You can fill an 8-oz. glass 107 times at the faucet for a penny! That's a great value.



### TROUBLESHOOTING WATER ISSUES

We know problems can pop up and we're here to help you troubleshoot issues. Whether you suspect a leak or think your water might look, smell, or taste unusual,

[LouisvilleWater.com/Troubleshoot](http://LouisvilleWater.com/Troubleshoot) is a good resource. Our new website walks you through questions to help pinpoint the issue. If you still can't diagnose the problem, call Customer Service at (502) 583-6610 to request Water Quality support.



### WHAT TO KNOW ABOUT LEAD

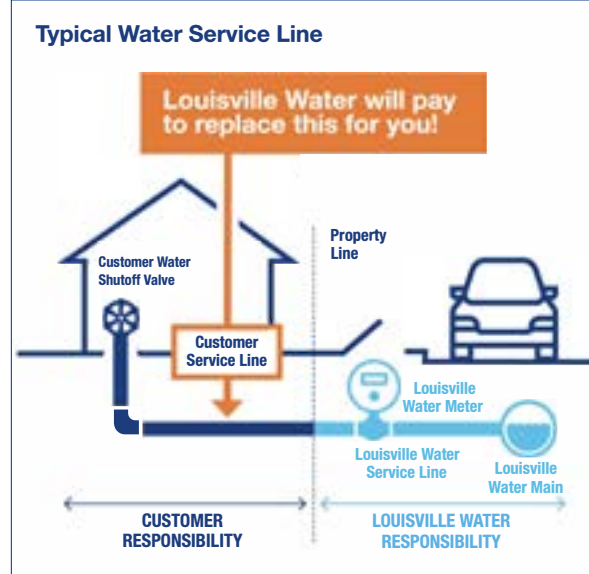
Protecting public health is at the core of what we do. Louisville's drinking water does not contain lead when it leaves our treatment plants. The risk for lead in water is from corrosion of plumbing materials made with lead. This includes pipes that are buried in the ground, as well as plumbing in your home, including solder and fixtures. While we balance the water chemistry to protect the water as it travels through pipes, it is important to eliminate the risk of lead by replacing lead pipes, fixtures, and solder.

If you are concerned about the risk of lead in your drinking water, we'll test your water for free. To order a water quality lead test kit, call (502) 569-0898 or visit [LouisvilleWater.com/Water-Quality-Lead-Test-Kit](http://LouisvilleWater.com/Water-Quality-Lead-Test-Kit).

### LOUISVILLE WATER WILL HELP REPLACE YOUR LEAD OR GALVANIZED SERVICE LINE FOR FREE

The service line is the pipe that brings drinking water from the water main into your home. Louisville Water installs a service line from the water main and the customer installs one on their property. Years ago, Louisville Water and plumbers used lead and galvanized pipes and we need to replace those. Louisville Water has proactively replaced thousands of lead service lines it installed. Older homes (those typically built before 1950) may still have had a lead or galvanized service line. It's important that we find remaining lead and galvanized service lines and work together to get them replaced.

Customers are responsible for the private plumbing on their property, but if you have a private outdoor lead or galvanized service line, we want to help you! Louisville Water will pay to replace it free of charge, but we need your help to do that. To see if we have information on your property, please visit our Private Service Line look-up tool at [LouisvilleWater.com/Lead-Awareness](http://LouisvilleWater.com/Lead-Awareness). Follow the prompts to access your records of materials or



complete your pipe identification. If you qualify for the replacement program, submit the online form, email [leadproject@LouisvilleWater.com](mailto:leadproject@LouisvilleWater.com), or call (502) 569-0898.

### LEAD AND YOUR HEALTH (A MESSAGE FROM THE EPA)

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.

Louisville Water 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 washing 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [EPA.gov/safewater/lead](http://EPA.gov/safewater/lead).

### A PROPOSED NEW REGULATION: PFAS CHEMICALS

The EPA has proposed new water quality standards for a group of contaminants called PFAS. Louisville Water is prepared to manage health risks from PFAS by treating drinking water to levels that protect public health. PFAS are manufactured chemicals that do not naturally occur but can show up in sources of drinking water. PFAS stands for per- and polyfluoroalkyl substances.

In the 1940s, manufacturers created these compounds to produce industrial and household items like non-stick cookware, waterproof fabric, fast food packaging, pesticides, firefighting foam, and more. The EPA says most of our exposure to PFAS chemicals comes from consumer goods and not drinking water. However, scientists routinely detect PFAS in lakes, rivers, and groundwater.

### WHAT DOES LOUISVILLE WATER'S DATA TELL US?

The EPA proposal would individually regulate the maximum allowed level of PFOA and PFOS in drinking water at 4.0 parts per trillion (ppt) and would regulate four other PFAS compounds, including GenX, as a group using a proposed Hazard Index (H.I.) of 1.0. (An H.I. is the calculation of the cumulative risk of health impacts from consuming water containing these compounds.)

Our research indicates annual average levels of PFOA and PFOS are below the proposed regulatory standard of 4.0 ppt (0 ppt for PFOS and 1.9 – 2.0 ppt for PFOA.) For the other four PFAS compounds, our calculated H.I. is well below EPA's proposed H.I. of 1.0. While the EPA finalizes its regulation, our scientists continue to monitor our water for PFAS and evaluate treatment options to further lower the PFAS levels in our water.

The scientific terminology can be confusing, but the bottom line is Louisville Water will meet the proposed regulations and protect the quality of your drinking water.