QUESTIONS ABOUT THIS REPORT?

Contact Kelley Dearing Smith, Public Information Officer, by phone at **502.569.3695** or send an email to **ksmith@lwcky.com.** To request copies, visit **LouisvilleWater.com/RequestWQReport** or call **502.583.6610.**

CUSTOMER INPUT

The Board of Water Works typically meets the third Tuesday of each month at 11:00 a.m. at 550 South Third Street in Louisville.

WE LOVE TO TALK ABOUT WATER

Ever wonder why Louisville's drinking water is so good? We'd like to tell you the story of the history, science and innovation behind Louisville pure tap®—visit the WaterWorks Museum at Louisville Water Tower Park (3005 River Road). For more information, visit **LouisvilleWater.com/WaterTowerPark.** To schedule a speaker for your organization or have questions about our community education program, email **questions@lwcky.com.**

ACCOUNT SERVICES

Access your account online at **LouisvilleWater.com,** by phone at **502.583.6610** or toll free at **888.535.6262**. To speak with a Customer Service Representative, please call during business hours, Monday - Friday, 8 a.m. - 6 p.m. Be sure to have your account number handy.

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 p.m. - 4 p.m.
Shepherdsville Govt. Center
634 Conestoga Parkway
Shepherdsville, KY 40165

LouisvilleWater.com

Louisville Water

LOUISVILLE WATER

ANNUAL WATER QUALITY REPORT

Louisville Water

PWSID: KY0560258
LouisvilleWater.com

ABOUT YOUR DRINKING WATER

Louisville Water Company's Annual Water Quality Report includes information about your drinking water—Louisville pure tap®. And it's all good news!

Louisville Water prepares this report to meet Environmental Protection Agency (EPA) requirements under the Safe Drinking Water Act. It's important for you to know that your drinking water meets and exceeds the EPA's strict health standards.

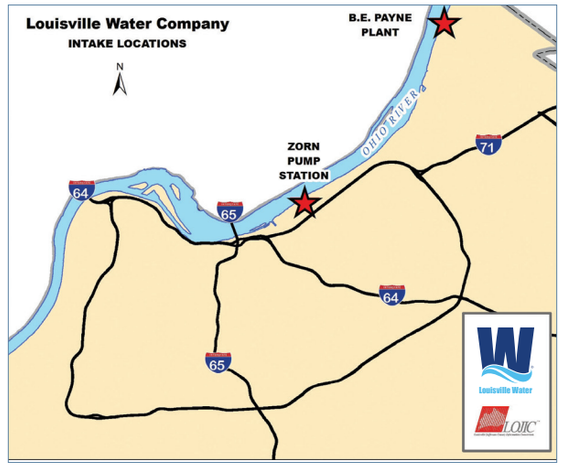
Since 1860, Louisville Water has provided safe, high-quality drinking water to its customers. Louisville Water is a lifeline to the region, providing water to almost one million people in Louisville Metro and several surrounding counties.

WHERE DOES MY DRINKING WATER COME FROM?

Louisville Water is the public water supplier to Louisville Metro and parts of Bullitt and Oldham Counties. Louisville Water operates two water treatment plants with two sources. The majority of your drinking water comes from the Crescent Hill Water Treatment Plant, which treats water that is pumped directly from the Ohio River to the plant. The B.E. Payne Water Treatment Plant treats groundwater collected from the surrounding aquifer through a process called riverbank filtration. That groundwater is pumped from an underground tunnel to the plant for treatment.

PROTECTING OUR SOURCE

Louisville Water maintains a Source Water Assessment and Protection Plan (SWAPP) that outlines the steps to address potential sources of contamination along the Ohio River, such as spills of hazardous materials. We also maintain a Wellhead Protection Plan (WHPP), which outlines contamination risks to our wellhead protection area. The WHPP is available online at: **LouisvilleWater.com/water-quality/wellhead-protection.** In 2019, Louisville Water completed an EPA-certified risk and resiliency assessment and updated our Emergency Response Plan (ERP). For questions related to the SWAP, WHPP, or ERP, please contact Chris Bobay at 502.569.3600 x2450.



WHAT'S IN MY DRINKING WATER?

Louisville Water performs over 200 tests every day on your water. The data in this report shows some of the testing that we do:

- **We test the water at the treatment plants.**

  We report the levels of regulated substances in the water as it travels through the treatment process.

- **We test the water in the distribution system.**

  We report the levels of regulated substances in the water as it travels through our system of tanks, pump stations, and pipes.

- **We test the water at the customer's tap.**

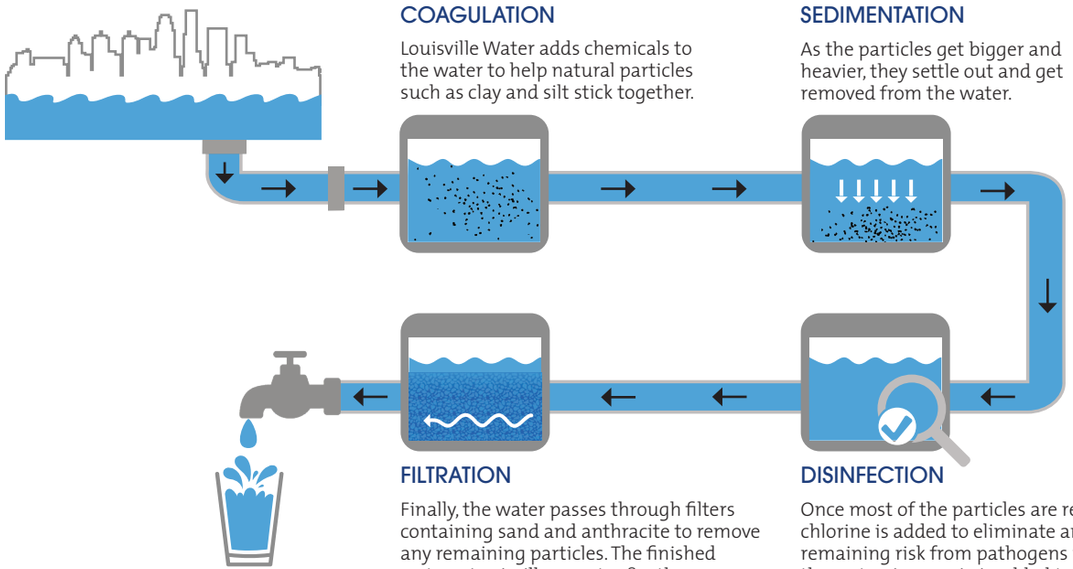
  We report the levels of regulated substances in the water from many businesses, government buildings, and customer homes.

Again, we are proud to report that Louisville Water received **no** violations and met and exceeded all state and federal requirements.

View this report online at
LouisvilleWater.com/WaterQualityReport

HOW WE MAKE YOUR 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.



COAGULATION

Louisville Water adds chemicals to the water to help natural particles such as clay and silt stick together.

SEDIMENTATION

As the particles get bigger and heavier, they settle out and get removed from the water.

FILTRATION

Finally, the water passes through filters containing sand and anthracite to remove any remaining particles. The finished water—Louisville pure tap®—then goes into a clear well, a large underground storage unit at the treatment plant, and is pumped out into the distribution system.

DISINFECTION

Once most of the particles are removed, chlorine is added to eliminate any remaining risk from pathogens present in the water. Ammonia is added to stabilize the disinfectant and keep the water safe as it travels through Louisville Water's distribution system.

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 the 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 the surface of the 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 be 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. 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. 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.

ADDITIONAL WATER QUALITY DATA - 2020

	CRESCENT HILL & B.E. PAYNE
pH (SU)	*8.7*
Alkalinity (as CaCO3) (mg/L)	*69*
Hardness (as CaCO3) (mg/L)	*123 (7.2 grains per gallon)*
Calcium (as Ca) (mg/L)	*30*
Magnesium (as Mg) (mg/L)	*12*
Sodium (as Na) (mg/L)	*23*
Chloride (mg/L)	*27*
Sulfate (mg/L)	*54*
Total Dissolved Solids (mg/L)	*208*

*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.*

mg/L: *Milligrams per liter. One milligram per liter is equal to one part per million.*

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.*

n/a: *Not Applicable. Does not apply.*

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

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, 2020

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

			CRESCENT HILL WATER TREATMENT PLANT (CH)			B. E. PAYNE WATER TREATMENT PLANT (BEP)				
Substance (units)	*MCL*	*MCLG*	*CH Average*	*Highest Level Detected*	*Range of Detections*	*BEP Average*	*Highest Level Detected*	*Range of Detections*	*Compliance Achieved*	*Typical Source of Contamination (for more details, visit www.epa.gov/safewater)*
INORGANIC										
Fluoride (ppm)	4	4	0.6	0.6	one measure	0.6	0.6	one measure	YES	Additive that promotes strong teeth. Fertilizer & aluminum factories. Erosion of natural deposits.
Nitrate (ppm)	10	10	0.9	1.0	0.8 - 1.0	0.3	0.5	0.1 - 0.5	YES	Runoff from fertilizer & leaching from septic tanks. Erosion of natural deposits.
Turbidity (NTU)	TT 100% ≤ 1.0 and 95% ≤ 0.3	n/a	0.05	0.07 (100% ≤ 0.3)	0.03 - 0.07	0.04	0.07 (100% ≤ 0.3)	0.03 - 0.07	YES	Soil runoff.
ORGANIC										
Total Organic Carbon (Removal Ratio)	TT (≥ 1.00)	n/a	1.34	Lowest RAA Removal Ratio 1.34	0.92 - 1.97	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 2020, 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 www.epa.gov/safewater)*
Total Trihalomethanes (ppb)	80	n/a	28.8 (LRAA)	10.5 - 37.7	YES	By-product of drinking water disinfection.
Haloacetic Acids (ppb)	60	n/a	22.6 (LRAA)	2.5 - 31.6	YES	By-product of drinking water disinfection.
Chlorine Residual (Chloramines) (ppm)	MRDL = 4	MRDLG = 4	2.64 (RAA)	1.44 - 3.37	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 www.epa.gov/safewater)*
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. The 90th percentile means that 90 percent of our samples were below the listed concentrations.

Spanish (Español): Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien. (This pamphlet contains important information about your drinking water. Please have this information translated.)

LEAD AWARENESS

NO MORE KNOWN PUBLIC LEAD LINES IN LOUISVILLE WATER'S DISTRIBUTION SYSTEM

Louisville Water began as Kentucky's first public water provider in 1860 and until 1936 it was common to install a lead pipe, called a service line, that connected the utility's drinking water to the customer's water line. Louisville Water installed an estimated 74,000 lead service lines before 1936. Since then, Louisville Water has installed copper service lines except during World War II when lead was used again because of a suspected copper shortage. In the 1970s, the company began replacing those old lead lines with copper when they were found. In the 1990s, Louisville Water began an aggressive strategy to find and replace all lead service lines. In March of 2020, after 50 years and more than $50 million, Louisville Water announced it had successfully removed all its known public lead service lines from the distribution system. Only a small number of other utilities in the United States have reached this milestone.

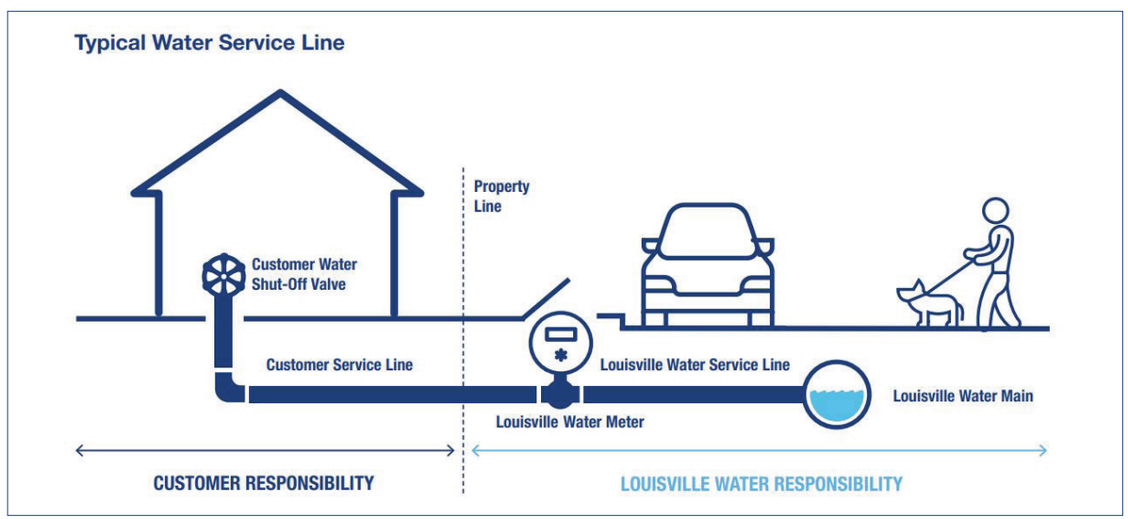
CUSTOMERS MIGHT HAVE A PRIVATE LEAD SERVICE LINE

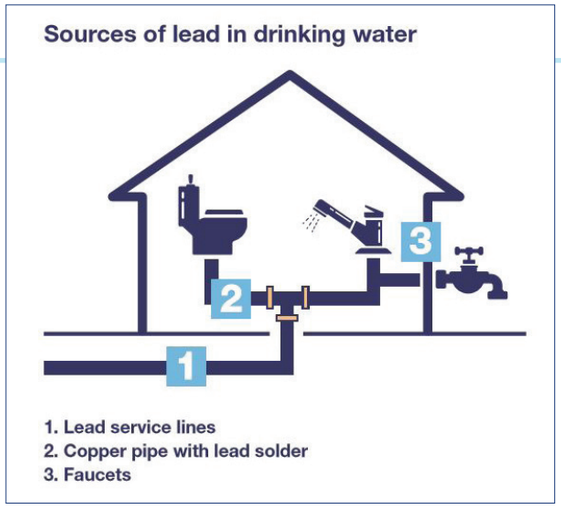
Some Louisville Water customers with older homes (those typically built before 1950) may have a private lead service line on their property that connects to Louisville Water's line. A customer's private service line begins at the property line connection and runs to the water shut-off valve inside the home.

Louisville Water may not currently have records for all private service line materials. If our records indicated that a portion of a customer's service line may be lead, the customer was contacted about replacing this line. You can visit **LouisvilleWater.com/Lead-Awareness** and use our Private Service Line Lookup tool to see if we have information on your property. A licensed plumber can also check your line to see if it's lead.

LOUISVILLE WATER WILL HELP WITH REPLACEMENT

Because replacing a service line can be expensive, Louisville Water will pay 50 percent of the cost, up to $1,500. If customers can't afford this program and they meet eligibility requirements, Louisville Water Foundation's grant program may pay the remaining replacement cost. Visit **LouisvilleWater.com/Lead-Awareness** for more information on this program, how to apply, and frequently asked questions.





INFORMATION ABOUT LEAD

Lead is a metal that is found in natural deposits in the environment, but it is rarely found in source water. Louisville's drinking water does not contain lead when it leaves the treatment plants and as it travels through our distribution system.

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. Louisville Water 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 5 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. Please visit **LouisvilleWater.com/Lead-Awareness** to request a free water quality test kit for your home. More 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.**

LEAD AND COPPER RULE

In 1991, the EPA published a regulation to control lead and copper in drinking water known as the Lead and Copper Rule (LCR). For the LCR, we sample water at the customer's tap at sites with known lead service lines or lead/copper solder. If lead concentrations exceed an Action Level of 15 ppb or copper concentrations exceed an Action Level of 1.3 ppm in more than 10 percent of customer taps sampled, the water system must undertake a number of additional actions to control corrosion on those lines.

Louisville Water's 2020 monitoring found all samples were below EPA's Action Level for both lead and copper. For more information visit **LouisvilleWater.com/Lead-Awareness.**

Coronavirus and your drinking water

In regards to the coronavirus, there's no need to worry about the safety of your drinking water, Louisville pure tap®. In fact, studies show the disinfection we use to treat the water, chlorine, kills coronavirus and other water-borne viruses. Use our water to wash your hands frequently and be sure to keep hydrated by enjoying Louisville pure tap® either at home or on the go.

Need assistance with an unpaid bill?

Drops of Kindness is an effort by Louisville Water and Louisville MSD to help customers with unpaid bills. Whether you're a resident or business owner, Drops of Kindness offers a customized approach to manage through these difficult times and reduce future financial obligations. Visit **LouisvilleWater.com/DropsOfKindness** for more information.

Has your building been closed? Flush your lines

When businesses and schools begin reopening buildings where water has been turned off, stagnant, or under-used during the pandemic shutdown, it is essential that water pipes be flushed properly. Flushing water lines is an easy way to ensure that high water quality is maintained. It moves older water, that has been sitting in the pipes, out of the building and brings in fresh water. Visit **LouisvilleWater.com/flushing** for steps on how to flush your water pipes.