

EXPERIENCE LOUISVILLE WATER TOWER PARK

NATIONAL HISTORIC LANDMARK BECOMES A MUSEUM DESTINATION

Louisville Water Company has renovated and restored the interior of Pumping Station No. 1, located on Zorn Avenue at River Road. Built between 1858 and 1860 as part of the city's original Water Works, the Pumping Station was designated a National Historic Landmark in 1971.

Restoration of Pumping Station No. 1, which is the first large-scale interior project since the 1970s, brings the facility back to closely resembling its original pre-Civil War condition. Walls,



trim and an early 1900s cast-iron spiral staircase were restored.

The new WaterWorks Museum is located in the west wing of Pumping Station No. 1. The Museum highlights Louisville Water's considerable archive of historic photographs, some dating back to 1860, films and memorabilia, and allows visitors to discover the company's contributions to safe drinking water through its innovations in science and engineering.

Visitors can see original architectural drawings, pieces of original water mains, meters and tools used to keep water flowing over the years.

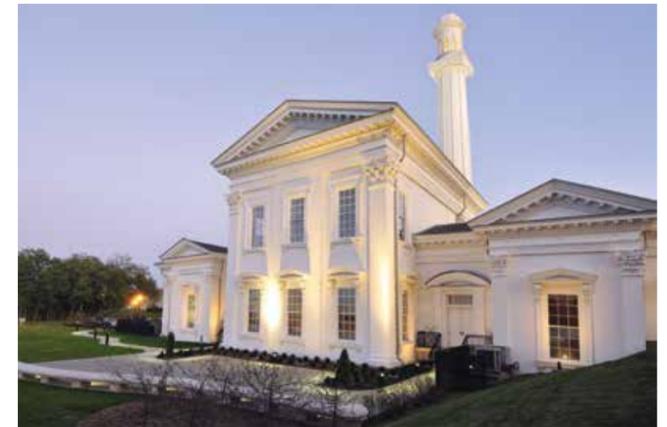
Exhibits also include an original steam mud pump as well as lessons about Louisville Water's groundbreaking efforts such as riverbank filtration. The museum hosts student field trips utilizing curricula aligned to Kentucky Common Core Standards. Tours focus on the science of clean drinking water as well as the importance of the architecture and engineering innovation involved in supplying consistently safe and healthy water to the community.



Along with the exhibits, the company is displaying a number of videos produced over the years, including a silent movie produced in 1938, which shows the steam engines operating and mules cleaning out the reservoir.

Pumping Station No. 1 is located on the site that features another of Louisville's National Historic Landmarks, the iconic Water Tower. The entire site has been branded as "Louisville Water Tower Park" to highlight the over 150-year connection between Louisville Water and the community.

Louisville Water Tower Park is available for both public and private rental.



Open Wednesday thru Friday, 10am - 5pm and Weekends, 10am - 3pm.
Admission to the WaterWorks Museum ranges from \$5 for adults, \$4 for seniors, \$3 for youth and children under five are free. The museum offers discounts for families and those with a military and student ID.

Louisville Water Tower Park, 3005 River Road in Louisville, KY 502.897.1481
LouisvilleWaterTower.com.

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.

CUSTOMER INPUT

Our Customer Advisory Council meets bimonthly. The Board of Water Works meets the third Tuesday of each month at 12:30pm at 550 South Third Street in Louisville.

PUBLIC INFORMATION

Louisville Water provides tours, education programs and guest speakers. For more information, email publicinfo@lwcky.com or call 502.569.3600.

ACCOUNT SERVICES

Access your account online at LouisvilleWater.com and by phone at 502.583.6610 or toll free at 888.535.6262. To speak with a Customer Care Representative, please call during business hours, Monday - Friday, 8am - 7pm. Be sure to have your account number handy.

WALK-IN CUSTOMER SERVICE

Monday - Friday 8am - 5pm Corporate Headquarters 550 South Third Street Louisville, KY 40202	Monday - Friday 8am - 1pm & 1:30pm - 4pm Shepherdsville Govt. Center 634 Conestoga Parkway Shepherdsville, KY 40165
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LOUISVILLE WATER COMPANY ANNUAL WATER QUALITY REPORT 2014



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Follow us on Twitter at LouisvilleWater.



PWSID:
KY0560258
LouisvilleWater.com

ABOUT YOUR DRINKING WATER

Louisville Water Company's Annual Water Quality Report informs you 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 Amendment. Scientists in our EPA-certified laboratory conduct over 200 tests a day to ensure Louisville pure tap® is safe and high quality. It's important for you to know that your drinking water meets and surpasses the EPA's strict health standards.

Louisville Water provides Louisville pure tap® to over 850,000 people in Louisville Metro and parts of Bullitt, Nelson, Oldham, Shelby and Spencer counties every day.

LOUISVILLE PURE TAP® —THE PEOPLE'S CHOICE

Louisville is known for its outstanding water quality and great-tasting product and once again, our peers have recognized the value of Louisville pure tap®. Our drinking water was named the "People's Choice for Best-Tasting-Tap-Water in North America" by attendees at the 2013 American Water Works Association annual conference. It's the second time in five years that the Association has honored Louisville Water with national recognition.

EXTENDING INNOVATION

Louisville Water has two treatment plants on the Ohio River. The B.E. Payne Water Treatment Plant, the first plant to use riverbank filtration, can supply up to 60 million gallons of drinking water a day; the Crescent Hill Filter Plant can supply up to 180 million gallons of drinking water.



At the B.E. Payne Treatment Plant, work is underway to construct a chlorine generation facility that will allow the production of a dilute sodium hypochlorite solution. We installed a similar system at the Crescent Hill Filter Plant in 2010. This facility eliminates the risk of storing gaseous chlorine and creates a much safer environment for our employees and the community.

Preliminary engineering is underway to install riverbank filtration at the Crescent Hill Filter Plant. We have had outstanding success with this advanced treatment technology at the B.E. Payne Treatment Plant. Riverbank filtration supplies a higher quality of source water since the water is naturally filtered in the aquifer rather than drawn directly from the Ohio River.

GET BACK TO THE TAP



You've been spotted!
and won a t-shirt.

Louisvillepuretap.com

All you need for affordable, great-tasting, high quality drinking water on-the-go is a container and a faucet. Drinking from the tap reduces single-use plastic bottle waste and saves you money. Don't have a re-usable bottle? We'll send you a Louisville pure tap® bottle for free, while supplies last. Call 502.569.3600 and ask for Public Information or send an email to publicinfo@lwcky.com.

Get spotted with your Louisville pure tap® bottle and we'll give you a card to redeem a Why Louisville pure tap®? t-shirt—it's another great reason to get back to the tap! 

LOUISVILLE WATER COMPANY'S 2013 WATER QUALITY DATA

Data is from testing done in 2013, unless otherwise noted, in accordance with 401 KAR Chapter 8. All results exceed EPA guidelines.

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 Filter Plant (CHFP)			B. E. Payne Water Treatment Plant (BEP)			Compliance Achieved	Typical Source of Contamination (for more details, visit www.epa.gov/safewater/hfacts.html)
			CHFP Average	Highest Level Detected	Range of Detections	BEP Average	Highest Level Detected	Range of Detections		
INORGANIC										
Fluoride (ppm)	4	4	0.9	0.9	one measure	0.9	0.9	one measure	YES	Additive that promotes strong teeth. Fertilizer & aluminum factories. Erosion of natural deposits.
Nitrate (ppm)	10	10	1.0	1.1	0.9 - 1.1	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	0.09 (100% ≤ 0.3)	0.03 - 0.09	0.06	0.15 (100% ≤ 0.3)	0.03 - 0.15	YES	Soil runoff.

ORGANIC

Total Organic Carbon (Removal Ratio)	TT (≥ 1.00)	n/a	1.41	Lowest RAA Removal Ratio 1.30	1.08 - 2.21	1.00	Lowest RAA Removal Ratio 1.00	1.00 - 1.00	YES	Naturally present in the environment.
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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 byproducts. 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 2013, Louisville Water met the TOC treatment technique requirement.

RADIONUCLIDES

Combined Radium (pCi/L) (measured as Radium-226 & -228)	5	0	BDL	BDL	one measure	1.4	1.4	one measure	YES	Erosion of natural deposits.
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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/hfacts.html)
Total Trihalomethanes (ppb) (Stage 2 DBPR)	80	n/a	27.5 (LRAA)	12.0 - 39.4	YES	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb) (Stage 2 DBPR)	60	n/a	21.8 (LRAA)	3.5 - 40.0	YES	Byproduct of drinking water disinfection.
Chloramines (ppm)	MRDL = 4	MRDLG = 4	2.8 (RAA)	1.6 - 3.8	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/hfacts.html)
Copper (ppm)	AL 90% ≤ 1.3	1.3	0.53	0	0.24	BDL - 0.53	YES	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead (ppb)	AL 90% ≤ 15	0	29.0	5	12.0	BDL - 29.0	YES	Corrosion of household plumbing systems. Erosion of natural deposits.

Lead and copper results are from 2011 and the most recent required testing done in accordance with the regulation. All samples were taken at customer's taps meeting lead and copper plumbing and water holding time criteria. Fifty-two (52) sites were tested, five (5) samples exceeded the Action Level for lead; zero (0) exceeded the Action Level for copper.

Unregulated Contaminants - Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

UNREGULATED SUBSTANCES - TREATMENT PLANTS

Substance (units)	MCL	MCLG	Crescent Hill Filter Plant (CHFP)			B. E. Payne Water Treatment Plant (BEP)			Compliance Achieved	Typical Source of Contamination (for more details, visit www.epa.gov/safewater/hfacts.html)
			CHFP Average	Highest Level Detected	Range of Detections	BEP Average	Highest Level Detected	Range of Detections		
Perfluorooctanoic Acid (PFOA) (ppb)	n/a	n/a	BDL	0.02	BDL - 0.02	BDL	0.02	BDL - 0.02	N/A	Byproduct of drinking water disinfection. Used for emulsifier/surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases, lubricants, paints, polishes, adhesives and photographic films.
Vanadium (ppb)	n/a	n/a	BDL	BDL	BDL	0.2	0.4	BDL - 0.4	N/A	Naturally occurring elemental metal. Used as a chemical intermediate and a catalyst.
Chlorate (ppb)	n/a	n/a	145	180	120 - 180	BDL	BDL	BDL	N/A	Agricultural defoliant or desiccant. Byproduct of drinking water disinfection. Used in the production of chlorine dioxide.
Chromium-6 (ppb)	n/a	n/a	0.08	0.11	0.05 - 0.11	0.08	0.09	0.06 - 0.09	N/A	Naturally occurring element. Used in making steel and other alloys. Used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Molybdenum (ppb)	n/a	n/a	2.0	3.7	BDL - 3.7	2.7	3.2	2.1 - 3.2	N/A	Naturally occurring element found in ores and present in plants, animals and bacteria. Used as a chemical reagent.
Strontium (ppb)	n/a	n/a	195	250	160 - 250	130	140	120 - 140	N/A	Naturally occurring element. Historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
1,4-dioxane (ppb)	n/a	n/a	0.26	0.89	BDL - 0.89	0.18	0.25	0.09 - 0.25	N/A	Cyclic aliphatic ether. Used in the manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.
17 alpha-ethynyl Estradiol (ppb)	n/a	n/a	BDL	0.0011	BDL - 0.0011	BDL	BDL	BDL	N/A	Synthetic steroid. Prepared from estrone.

Public Notice of Availability of Data: In 2013, Louisville Water Company (PWSID: KY0560258), completed unregulated contaminant monitoring as required by the Unregulated Contaminant Monitoring Rule 3 (UCMR3). Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of the unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The detected contaminants from this monitoring are listed above under the Unregulated Contaminants section of this Water Quality Table. A list of all analytical results are available to the public by calling Kelley Dearing Smith at 502.569.3695.

Cryptosporidium: Louisville Water monitors the Ohio River for Cryptosporidium, a tiny intestinal parasite often found in surface waters. Cryptosporidium can cause flu-like symptoms if ingested. In 2013, Louisville Water analyzed 24 Ohio River samples. We detected low levels of Cryptosporidium in four samples with levels ranging from 0 oocysts/L to 0.2 oocysts/L. These detections were within ranges typically measured in the Ohio River. Louisville Water optimizes its treatment processes to help ensure removal.

MESSAGE FROM THE EPA

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. 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 indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency'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 material, and may 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; and
- 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,

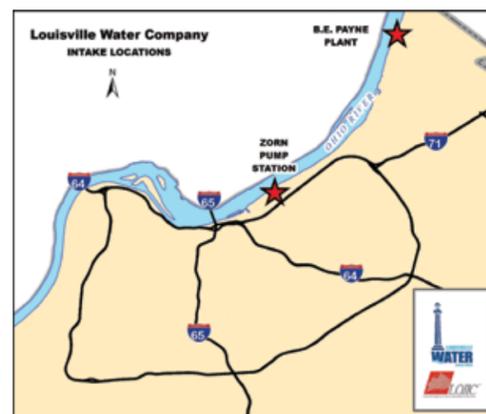
people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800.426.4791.

INFORMATION ABOUT LEAD

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 local public 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 at 800.426.4791 or at <http://www.epa.gov/safewater/lead>. [W](#)

THE SOURCE

Louisville Water Company is the public water supplier of Louisville Metro and parts of Bullitt and Oldham Counties. The Ohio River is the source for your drinking water. Louisville Water operates two surface water treatment plants with intakes on the Ohio River. In October 2003, the Kentucky Division of Water approved a Source Water Assessment and Protection Plan for Jefferson County. The plan looks at Louisville Water's susceptibility to potential sources of contamination. The plan identified spills of hazardous materials on the Ohio River and permitted discharges of sanitary sewers as the highest contamination risks. In Jefferson County, land use in the protection area is primarily zoned for residential and commercial use, with only a few industrial sites. In Oldham and Trimble Counties (areas bordering the Ohio River to the north of our intakes) land use is primarily zoned for residential and agricultural use. Therefore, source water contamination risks are relatively low. Louisville Water maintains an



Emergency Preparedness and Disaster Services Plan to address potential contamination risks. Contact Keith Coombs at 502.569.3682 to view the Source Water Assessment and Protection Plan.

Louisville Water also draws water through the aquifer with riverbank filtration wells at the B.E. Payne Water Treatment Plant. The Kentucky Division of Water approved Louisville Water's Wellhead Protection Plan (WHPP) in 2004. The goal is to safeguard groundwater feeding into the wells from contamination within the Wellhead Protection Area (WHPA) in Prospect. Louisville Water continually updates the plan. New residents and businesses in the WHPA receive information about the WHPP and educational materials. The information is also available at LouisvilleWater.com. [W](#)

ADDITIONAL WATER QUALITY DATA

Alkalinity (as CaCO₃) - 74 mg/L
pH - 8.2 (SU)
Calcium (as Ca) - 45 mg/L
Magnesium (as Mg) - 13 mg/L
Sodium (as Na) - 25 mg/L
Sulfate - 60 mg/L
Bicarbonate (as CaCO₃) - 67 mg/L
Chloride - 38 mg/L
Hardness (as CaCO₃) - 138 mg/L (8.1 grains/gallon)

Data is an average of Crescent Hill Filter Plant and B.E. Payne Water Treatment Plant.

*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.

DBPR: Disinfection By-Products Rule.

L: Liter.

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 or parts per million, ppm.

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 is monitored because it is a good indicator of the effectiveness of the filtration system.

pCi/L: Picocuries per liter. A measure of the radioactivity in 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.

TOC: Total Organic Carbon.

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

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.)

View this report online at LouisvilleWater.com.