

2024 Water Quality Report

Dear Valued Water Consumer,

Each time you turn on the tap, what's inside your water counts most. And nothing counts more than your health. That's why, water delivered by Leitchfield Water Works meets or surpasses all state of Kentucky and Federal Drinking Water Standards.

Purpose of this Report:

These reports are required of all municipal water agencies by the federal Safe Drinking Water Act. As long as you are a customer of ours you'll receive an annual report like the one you're now reading. Beyond information required by law, Leitchfield Water Works includes information we think you, our customer, will find helpful. This year's report contains test results based on thousands of samples collected from throughout our service area and analyzed during 2023. To enhance the safety and security of our water supply, operators monitor water quality in "real time" 24 hours a day, 365 days a year. Continue reading to learn about the quality of your drinking water, its sources and more.

Water Plant Location:

The new Leitchfield Water Treatment Plant at 3245 Lewis School Road, has completed construction and was put into service in October 2022. The new plant treats surface water from the Rough River Lake Reservoir.

How to get involved with concerns about water:

Leitchfield Water Works welcomes your input on all concerns regarding your drinking water. Your questions and observations are an important part of our quality assurance program. Reading this report and becoming involved with our local water issues will help build a strong community dedicated to keeping our water clean and safe. In addition, you are welcome to attend all Leitchfield Utilities Commission meetings held bi-monthly on the first and third Thursday at 5:00 pm. The meetings are held at Leitchfield City Hall located at 515 South Main Street.

Thanks from all of us:

Thank you for taking the time to read this report; we hope you have a better understanding of what we do to bring you safe drinking water. If you have any questions or concerns about this report or any other water quality issues, contact Jim Milliner, Plant Manager at Leitchfield Water Works 270-259-4501. We also offer tours of the treatment facility, call us to schedule yours today.



PWSID: KY0430244

3245 Lewis School Road • Leitchfield, KY 42754
Phone: 270.259.4501 • Fax: 270.259.0585
leitchfieldwater@leitchfield.org



Table Information:

In addition to the informational section of the Water Quality Report, we have included for your review, several tables. The tables will give you a better picture of the contaminants that were found in your drinking water for the calendar year of 2023 (January 1 – December 31) unless otherwise noted. The Safe Drinking Water Act (SDWA) requires that the highest level detected during the calendar year be provided in this report. **Not listed are the more than one hundred other contaminants for which we tested that were not detected at all.**

Table Key:

- **Parts per million (ppm)** - one part per million corresponds to one minute in two years, or a single penny in \$10,000.
- **Parts per billion (ppb)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **ND** – not detected in our testing

Table Definitions:

- **Action Level (AL)** - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level (MCL)** - 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.
- **Maximum Contaminant Level Goal (MCLG)** - 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.
- **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 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.
- **Contaminants** – substances detected in your drinking water during the calendar year 2023. All amounts detected were below allowed levels. The SDWA requires the highest level detected during the calendar year be provided in this report.
- **Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Setting drinking water standards:

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may be reasonably 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 Safe Drinking Water Hotline (800-426-4791).

When you drink water at an MCL level:

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Information about Lead:

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. Leitchfield Water Works 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 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 your water tested, contact Leitchfield Utilities Superintendent Dwight Embry at 270-259-4034. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>

Why your water needs to be treated:

“Natural” does not always mean “pure”. 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 human activity.

Contaminants that may be present in your 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 and 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 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 even mining activities.

Source water assessment is now available:

A Source water assessment was completed by Jack Stickney. He is a Source Water Technician for Kentucky Rural Water Association. The following is a summary our system’s susceptibility to contamination, which is part of the source water assessment plan he wrote. Leitchfield Water Works withdraws approximately 2.0 MGD of raw surface water from the Rough River Lake Reservoir. An analysis of the susceptibility of the water system’s supply to contamination indicates that this susceptibility is generally moderate. Areas of high concern at the Leitchfield intake consist of Row Crops, and Bridges and Culverts. In and of themselves, these high areas of concern do not represent a danger to the environment. It is the potential for chemical spills, leaks, or hazardous material accidentally spilling into the water source from these sites that gives them a Susceptibility Ranking of High. The overall Susceptibility Ranking for this water source is Moderate. You may view the source water assessment and protection plan anytime; it is located at the Leitchfield Water Treatment Plant.

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 (800-426-4791).

Water Quality Test Results

These results represent levels in the potable water supply, based on calendar year 2023.

Turbidity:
Turbidity is the measure of the cloudiness of water. Turbidity, by itself, is not harmful, but it can interfere with the disinfection of drinking water. We measure it because it is a good indicator of the effectiveness of the filtration system.

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.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation Y/N	Likely Source
Turbidity (NTU) TT	Never more than 1 NTU Less than 0.3 NTU 95% of samples each month.	0.30 NTU	100%	NO	Soil runoff

Regulated Contaminants:
These substances are regulated by the EPA. That means we test for them and they cannot be above a certain level, referred to as the MCL (maximum contaminant level). For additional information on these contaminants, please visit the Environmental Protection Agency’s web page at www.epa.gov

Contaminant (units)	MCL	MCLG	Report Level	Range	Date of Sample	Violation Y/N	Likely Source of Contamination
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Disinfectants/Disinfection Byproducts and Precursors

Total Organic Carbon (ppm) measured as ppm, but reported as a ratio.*	TT*	N/A	1.85 (lowest annual average)	1.42– 2.91 (monthly ratios)	2023	NO	Naturally present in environment.
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*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.

Chlorine (ppm)	MRDL: 4	MRDLG: 4	.87 (annual average)	0.2 – 1.2	2023	NO	Water additive used to control microbes.
HAA or Haloacetic acids (ppb) [individual sites]	MCL: 60	MCLG: N/A	26 (high Site average)	3 – 34	2023	NO	By-product of drinking water disinfection.
TTHM or Total Trihalomethanes (ppb)[individual sites]	MCL: 80	MCLG: N/A	46 (high site average)	27.9 - 62.1	2023	NO	By-product of drinking water disinfection.

Inorganic Contaminants

Barium (ppm)	2	2	0.030	0.030	March-23	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.69	0.69	March-23	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead & Copper

Contaminant (units)	Action Level	MCLG	90 th percentile results	Range of Detection	Date of Sample	Violation Y/N	Likely Source of Contamination
Lead (ppb)	AL =15	0	0	0 - .003	June - 22	NO	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppb)	AL =1.3	1.3	0.121	.005 - 0.212	June - 22	NO	Corrosion of household plumbing systems; erosion of natural deposits

Kentucky Drinking Water Facilities Recognized

The Kentucky Energy and Environment (EEC) Cabinet has recognized drinking water treatment facilities across the Commonwealth that have achieved performance standards while participating in the Area-Wide Optimization Program (AWOP). This is a multi-state initiative administered through the U.S. Environmental Protection Agency to facilitate drinking water systems in their voluntary efforts to achieve optimization goals that are more stringent than current regulations.

“Clean drinking water is a service we all take for granted until there is a problem,” said Alicia Jacobs, the Division of Water’s drinking water branch manager. “Kentucky’s AWOP participants are committed to optimizing the treatment process in order to provide the highest quality drinking water to Kentuckians.”

43 of 149 drinking water facilities received a certificate for meeting the AWOP turbidity goals and criteria in 2023.

Drinking water systems utilize AWOP tools and methods to increase the level of protection to consumers. In particular, AWOP emphasizes the reduction of turbidity and disinfection byproducts (DBPs). Turbidity, or cloudiness, is a measurement of particles in water including soil, algae, bacteria, viruses and other substances. DBPs are formed when chlorine, which is used for disinfection, reacts with organic material found in the source water.

“The Division recognizes and is grateful for the commitment these water facilities have to protecting the health of the public by working to exceed Safe Drinking Water Act requirements,” Jacobs said.

For additional information about AWOP visit: <https://eec.ky.gov/Environmental-Protection/Water/Drinking/DWProfessionals/Pages/Technical-Assistance.aspx> or contact Matt Lipps at james.lipps@ky.gov.



Pictured receiving the Kentucky/Tennessee American Water Works Association (AWWA) Water Treatment Plant Operation Award on behalf of Leitchfield Water Works are Darren Dennison and Jim Milliner.

Leitchfield Water Works won the Kentucky/Tennessee American Water Works Association (AWWA) Water Treatment Plant Operation Excellence Award in Memphis, Tennessee.

The Water Treatment Plant Operations Excellence Award acknowledges those utilities achieving operational excellence. A strong emphasis is placed on water quality, including a review of publicly available compliance records and verification that nominees have no water quality violations or impending trends that could indicate future non-compliance. In a confidential process, the awards committee reviews preliminary data and a description of operations, then makes the decision to visit the utility to review and discuss operations on site. Areas of importance include maintenance, safety, security, emergency preparedness and staffing as well as utility culture, professionalism, knowledge, tenacity, innovative technologies and programs. Each Certified operator at Leitchfield Water takes pride and dedication in delivering safe potable drinking water to our customers. The Certified operators not pictured above that complete our team are Lyndon Lashley, Wayne White, Micah Cox, Tony Stone, Robbie Mattingly, Jim Renfro and also two OIT’s in Joseph Norder and Brady Stone. This is an enormous accomplishment for the City of Leitchfield and would also not be possible without the Utilities Commission and the City Council for their diligent work and their proactive mindset to keep the City of Leitchfield thriving and growing.