Southern Water and Sewer District
Water Quality Report 2025

For previous reports include year.
Example: tapwaterinfo.com/2024/southern

Water System ID: KY0360026 Manager: Randy Conley	CCR Contact: Westley Little 606-874-2007	Mailing Address: 245 KY RT 680 McDowell, KY 41647	Meeting location and time: Water District Office 4th Monday, monthly at 5:30PM

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

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).

Source Information:
The source of water for Southern Water and Sewer District, the City of Pikeville and Prestonsburg City Utilities is surface water withdrawn from Levisa Fork of the Big Sandy River. The source of water for Knott County Water and Sewer is surface water from Carr Fork Lake. We purchase a portion of our water from Pikeville, Prestonsburg and Knott County in addition to the water processed at our Water Treatment Plant in Allen. An analysis of the susceptibility of the raw water sources to contamination has been completed. The overall susceptibility is rated high for the sources of Southern, Pikeville and Prestonsburg due to many of the potential contaminant sources such as: mining, construction, roads/rail, sewage treatment plants, landfill and an active superfund site. Susceptibility to contamination of the source water for Knott County is considered moderate due to roads and bridges, mining activity, oil and gas wells, untreated sewage and hazardous waste sites. Activities and land uses within the watershed can pose potential risks to your drinking water. Under certain circumstances contaminants could be released that would pose challenges to water treatment or even get into your drinking water. These activities, and how they are conducted, are of interest to our customers because they potentially affect your health and the cost of your drinking water. The complete source water assessment for Southern, Pikeville and Prestonsburg water utilities can be reviewed at the Big Sandy Area Development District office located in Prestonsburg, Kentucky. The complete source water assessment for Knott County can be viewed at the Kentucky River Area Development District office in Hazard, Kentucky.

Service Area Information:
Water produced by the treatment plant at Southern Water is distributed throughout our system. We purchase water from Pikeville to supplement our supply at Toler Creek and Tackett Fork. We also purchase water from Knott County to supplement our supply in Lick Skillet down to Wayland. During high usage periods, we purchase water from Prestonsburg to supplement our supply in David and along Route 850. If you have any questions about which water producers may be supplying your area, please contact our office.

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. Your local water system 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 your local water system. 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.

We are required to annually provide information about the health risks from lead in drinking water to schools and child care facilities. All elementary schools, secondary schools, and child care facilities are eligible to be sampled for lead by our water system. Contact our office for scheduling or to learn results of previous sampling.

Service Line Inventory Information:
To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. We have completed a service line inventory (SLI) and it is available for review at our office.

Lead Sample Results Availability Information:
We are required to periodically sample water from customer taps to determine lead and copper levels. EPA sets the lead action level at 0.015 mg/L (15 ppb). For a water system to be in compliance, at least 90% of tap water samples must have lead levels below this limit. This report contains the 90th percentile and range of our most recent sampling. The individual results for each location sampled can be reviewed at our office.

Some or all of these definitions may be found in this report:
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.
Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.
Not Applicable (N/A) - does not apply.
Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
Picocuries per liter (pCi/L) - a measure of the radioactivity in water.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU) - a measure of the 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.
Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.
Treatment Technique (TT) - 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.

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those for which EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours. Detections from this sampling are listed in the table below.

P=Pikeville S=Southern K=Knott County PR=Prestonsburg

Unregulated Contaminants (UCMR 5)		average	range (ppb)			date
Lithium	S=	17.5	13	to	21	Nov-24
	K=	2.525	0	to	10.1	Dec-25
	P=	14.95	0	to	26.3	Nov-25
	PR=	19.025	12.4	to	33.6	Oct-23

Violation 2025-9951047
The EPA requires that public water systems receive sanitary surveys to make sure that the system can provide adequate, safe drinking water. Sanitary surveys are carried out to evaluate the capability of a drinking water system to consistently and reliably deliver an adequate quality and quantity of safe drinking water to the consumer, and the system's compliance with federal drinking water regulations. A sanitary survey was conducted on our water system and significant deficiency(s) were determined. We failed to respond to the sanitary survey significant deficiency within the required time period.

Our response was due on 1/18/2025 and was not received by the state until 3/19/2025. There is nothing you need to do. The deficiency was noted because we did not maintain a Line Leak Log with all of the pertinent information required by regulation. We have since updated our log to reflect all of the information that is required.

For more information, please contact Randy Conley at 606-874-2007 or 245 KY Route 680 McDowell, KY 41647.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Violation 2026-9951048
We failed to issue the Public Notification regarding Violation 2025-9951047 (above) in the allotted time as required by regulation and so we received a violation. We have included the Public Notification here 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.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take one corrective action and we completed one of these actions.

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

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. **Copies of this report are available upon request by contacting our office during business hours.**

Regulated Contaminant Test Results

P=Pikeville S=Southern K=Knott County PR=Prestonsburg

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Inorganic Contaminants								
Barium [1010] (ppm)	2	2	S=	0.056	0.056 to 0.056	2025	No	Drilling wastes; metal refineries; erosion of natural deposits
			PR=	0.072	0.072 to 0.072	2025	No	
			P=	0.073	0.073 to 0.073	2025	No	
Fluoride [1025] (ppm)	4	4	S=	0.88	0.88 to 0.88	2025	No	Water additive which promotes strong teeth
			PR=	0.9	0.9 to 0.9	2025	No	
			P=	0.75	0.75 to 0.75	2025	No	
			K=	0.79	0.79 to 0.79	2025	No	
Nitrate [1040] (ppm)	10	10	S=	0.16	0.16 to 0.16	2025	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Selenium [1045] (ppb)	50	50	S=	0.7	0.7 to 0.7	2025	No	Discharge from petroleum and metal refineries or mines; erosion of natural deposits
			K=	0.7	0.7 to 0.7	2025	No	
Disinfectants/Disinfection Byproducts and Precursors								
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	S=	1.74	1.07 to 2.91	2025	No	Naturally present in environment.
			PR=	1.1	1 to 1.74	2025	No	
			P=	1.11	1 to 2.32	2025	No**	
			K=	1.38	1.01 to 2.67	2025	No	
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.								
** Pikeville uses an approved alternative compliance method and is in compliance								
Chlorine (ppm)	MRDL = 4	MRDLG = 4	S=	1.32 (highest average)	0.35 to 3.20	2025	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	S=	26 (average)	12 to 29 (range of individual sites)	2025	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	S=	61 (average)	11 to 79 (range of individual sites)	2025	No	Byproduct of drinking water disinfection.
Household Plumbing Contaminants								
Copper [1022] (ppm) Round 1 sites exceeding action level 0	AL = 1.3	1.3	S=	0.021 (90^{th} percentile)	0 to 0.036	2024	No	Corrosion of household plumbing systems

Other Constituents

Turbidity (NTU) TT * Representative samples	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% monthly samples	S=	0.3	100	No	Soil runoff
		PR=	0.256	100	No	
		P=	0.3	100	No	
		K=	0.082	100	No	

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