

**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, ( $\mu\text{g/L}$ ). 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.

**Variations & 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.**

## Big Sandy Water District Water Quality Report 2024

For previous reports include year.  
Example: tapwaterinfo.com/2023/bigandy

Water System ID: KY0100944  
Maintenance Supervisor: James Blanton  
606-928-2075  
CCR Contact: James Blanton  
606-928-2075

Mailing address:  
18211 State Route 3  
Catlettsburg, KY 41129

Meeting location and time:  
Water Office - 18211 State Route 3  
Third Thursday each month at 9:00 AM



This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide a safe, clean, and reliable supply of drinking water.

### Source Information:

Big Sandy Water District provides purchased water from several suppliers, all of which treat surface water. The suppliers and their sources include: Rattlesnake Ridge Water District withdraws from Grayson Lake; Kenova Water Works withdraws from Big Sandy River; Louisa Water Department withdraws from Big Sandy River; Ashland Water Works (directly and by way of Cannonsburg Water District) withdraws from the Ohio River. Each of these suppliers has conducted an analysis of susceptibility to contamination and the overall susceptibility is considered moderate to moderately high. Areas of high concern include transportation corridors, underground and above ground storage tanks, agricultural land use, industrial sites, and waste generators. The respective Source Water Assessment Plans are available for review at each of the water producers. Contact information for our

suppliers can be obtained by calling our office at 606-928-2075. For specific service areas contact the Big Sandy Water District. General service areas for each supplier:

- Rattlesnake Ridge Water District - serves Spankem Branch area
- Kenova Water Works - serves South of I-64 to Kentucky Power Plant
- Louisa Water Department— serves South Highway 32 to Blaine Hill
- Cannonsburg Water District (water from Ashland) - serves Route 60 area
- Ashland Water Works – serves the Catlettsburg area

### Message from the EPA:

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).

### 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.

We are only required to test for some contaminants periodically, so the results listed in this report may not be from the previous year. Only detected contaminants are included in this report. For a list of all contaminants we test for please contact us. Copies of this report are available upon request by contacting our office.

A=Ashland B=Big Sandy K=Kenova L=Louisa R=Rattlesnake Ridge										
	Allowable Levels		Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity			
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU*		A=	0.134	100	No	Soil runoff			
	Less than 0.3 NTU in		R=	0.08	100	No				
	95% monthly samples		K=	0.465	100	No				
			L=	0.09	100	No				
Regulated Contaminant Test Results										
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	A=	0.033	0.033	to	0.033	2024	No	Drilling wastes; metal refineries; erosion of natural deposits
			K=	0.0803	0.0803	to	0.0803	2024	No	
			L=	0.057	0.057	to	0.057	2024	No	
Chromium [1020] (ppb)	100	100	K=	1.8	1.8	to	1.8	2024	No	Discharge from steel and pulp mills; erosion of natural deposits
			A=	0.85	0.85	to	0.85	2024	No	
			R=	0.61	0.61	to	0.61	2024	No	
Fluoride [1025] (ppm)	4	4	K=	0.66	0.66	to	0.66	2024	No	Water additive which promotes strong teeth
			L=	0.75	0.75	to	0.75	2024	No	
			A=	0.85	0.85	to	0.85	2024	No	
			R=	0.61	0.61	to	0.61	2024	No	
Nickel (ppb) (US EPA remanded MCL in February 1995.)	N/A	N/A	K=	0.0014	0.0014	to	0.0014	2024	No	N/A
			A=	0.51	0.51	to	0.51	2024	No	
			R=	0.05	0.05	to	0.05	2024	No	
Nitrate [1040] (ppm)	10	10	K=	0.16	0.16	to	0.16	2024	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
			A=	0.51	0.51	to	0.51	2024	No	
			R=	0.05	0.05	to	0.05	2024	No	
Selenium [1045] (ppb)	50	50	K=	2.4	2.4	to	2.4	2024	No	Discharge from petroleum and metal refineries or mines; erosion of natural deposits
			A=	1.41	1.09	to	1.69	2024	No	
			R=	3.1	0	to	3.1	2024	No	
Thallium [1085] (ppb)	2	0.5	K=	0.016	0.016	to	0.016	2024	No	Leaching from ore-processing sites; discharge from glass, electronics, and drug factories
			A=	1.74	1	to	3.1	2024	No	
			R=	1.02	1	to	1.21	2024	No	
			L=	1.74	1	to	3.1	2024	No	
Disinfectants/Disinfection Byproducts and Precursors										
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	A=	1.41	1.09	to	1.69	2024	No	Naturally present in environment.
			K=	3.1	0	to	3.1	2024	No	
			L=	1.74	1	to	3.1	2024	No	
			R=	1.02	1	to	1.21	2024	No	
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.										
Chlorine (ppm)	MRDL = 4	MRDLG = 4	B=	1.16 (highest average)	0.32	to	2.00	2024	No	Water additive used to control microbes.
			A=	1.16	0.32	to	2.00	2024	No	
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	B=	57 (average)	12	to	81 (range of individual sites)	2024	No	Byproduct of drinking water disinfection
			A=	57	12	to	81	2024	No	
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	B=	89 (average)	26	to	137 (range of individual sites)	2024	YES	Byproduct of drinking water disinfection.
			A=	89	26	to	137	2024	YES	
Household Plumbing Contaminants										
Copper [1022] (ppm) Round 1 sites exceeding action level 0	AL = 1.3	1.3	B=	0.077 (90 <sup>th</sup> percentile)	0.005	to	1.03	2022	No	Corrosion of household plumbing systems
			A=	0.077	0.005	to	1.03	2022	No	
Lead [1030] (ppb) Round 1 sites exceeding action level 1	AL = 15	0	B=	2 (90 <sup>th</sup> percentile)	0	to	142	2022	No	Corrosion of household plumbing systems
			A=	2	0	to	142	2022	No	

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.

**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.**

**Violations 2025-9615849, 2025-9615850, 2025-9615851**

Total Trihalomethanes averaged at one of our system's locations for:

- 4/1/2024 through 6/30/2024 was 0.085 mg/L
- 7/1/2024 through 9/30/2024 was 0.089 mg/L
- 10/1/2024 through 12/31/2024 was 0.089 mg/L

Testing results showed that our system exceeded the standard, or maximum contaminant level (MCL), for total trihalomethanes. The standard for total trihalomethanes is 0.080 mg/L. It is determined by averaging all samples at each sampling location for the last 12 months.

We are working with our suppliers to minimize the formation of trihalomethanes while ensuring we maintain an adequate level of disinfectant. We have taken additional steps to increase flushing of water lines to determine if our efforts have been effective. We are also monitoring water storage tank levels and water flow patterns within the distribution system. Public notices were issued for each quarter we were out of compliance. We anticipate returning to compliance by the end of 2025.

*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.*

Unregulated Contaminants (UCMR 5)	average	range (ppb)	date
hexafluoropropylene oxide dimer acid (HFPO-DA)	0.006	0 to 0.025	Sep-24
perfluorobutanesulfonic acid (PFBS)	0.001	0 to 0.0037	Dec-23
perfluoropentanoic acid (PFPeA)	0.001	0 to 0.0033	Sep-24
Lithium	10.571	0 to 23.1	Sep-24

Your drinking water from Big Sandy 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. Contaminants that were detected are listed in the table above.