

# 2024 Consumer Confidence Report

WATER SYSTEM: Christian County Water District      KY PWSID: KY 024-0521

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PUBLIC MEETING LOCATION: 1940 Dawson Springs Road, Hopkinsville 42240      DATE & TIME: 2nd Thursday each month @6pm

*We test our drinking water as required by the state and federal regulations. This report shows the results of monitoring from January 2024 to December 2024. Christian County Water District is only required to test for some contaminants periodically, so the results listed in this CCR 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.*

## WHERE DOES MY WATER COME FROM?

SOURCE(S) OF WATER: Hopkinsville Water Environment Authority / Barkley Lake Water District / Todd County Water District

TYPE OF WATER SOURCE: SURFACE WATER

SOURCE WATER ASSESSMENT/WELLHEAD PROTECTION PROGRAM INFORMATION: On Pages 3&4

## WATER QUALITY TABLES

### Table of Lead and Copper Detections

Contaminant (units) [Sample Year]	Action Level (AL)	MCLG	# of Individual Taps over AL	90% of taps tested were less than	Range of Samples	In Compliance?	Typical Source of Contamination
Lead (ppb) [2024]	15 ppb	0 ppb	0	2	0-9	yes	Corrosion of household plumbing systems; erosion of natural deposits
	0 out of 30 taps were found to have levels in excess of the lead action level of 15 ppb						
Copper (ppm) [2024]	1.3 ppm	1.3 ppm	0	.074	0-0.229	yes	Corrosion of household plumbing systems; erosion of natural deposits
	0 out of 30 taps were found to have copper levels in excess of the copper action level of 1.3 ppm						

### Important 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. Christian County Water District 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 Christian County Water District at (270) 886-3696 or office@ccwd.net. 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>.

Christian County Water District has completed an initial inventory of all the service lines served by our water system. The results can be accessed by hard copy in our office located at 1940 Dawson Springs Road, Hopkinsville 42240.

## Table of Disinfectants/Disinfection Byproducts and Precursors

Contaminant (units)	MCLG or MRDLG	MCL, TT*, or MRDL	Level Detected	Range	In Compliance?	Sample Year	Typical Source
Chlorine (ppm)	=4	=4	1.86 (highest average)	.38-2.45	yes	2024	Water additive used to control microbes
HAA (ppb) [Haloacetic acids]	N/A	60	34 (high site average)	22-45	yes	2024	Byproduct of drinking water disinfection
TTHM (ppb) [total trihalomethanes]	N/A	80	51 (high site average)	31-62	yes	2024	Byproduct of drinking water disinfection

\*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

### \*Unregulated Contaminant Monitoring Rule (UCMR) Sampling

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not yet established drinking water standards, or limits to the amount of contaminant deemed safe for drinking water. The purpose of UCMR is to establish the presence of contaminants and determine if/when they will need to be removed from your drinking water.

CONTAMINANT (UNITS)	SAMPLE YEAR	AVERAGE LEVEL DETECTED	RANGE OF DETECTED LEVELS
Perfluorooctanesulfonic acid (PFOS)	2024	.000325	0-0.0013
Perfluorohexanoic acid (PFHxA)	2024	.00030	0-0.0012
Perfluorobutanesulfonic acid (PFBS)	2024	.000275	0-0.0011
Perfluorobutanoic acid (PFBA)	2024	.00040	0-0.0016
Perfluorobutanoic acid (PFBA)	2024	.000575	0-0.0023

## Hopkinsville Water Environment Authority Source Water Assessment

The final source water assessment with a summary of our system's susceptibility to potential sources of contamination has been completed. A brief summary of this assessment for HWEA (PWSID #KY0240201) (WW0251) is as follows:

An analysis of HWEA's water supply indicates that there are fifty-three potential contaminant sites with the possibility of contaminating the water supply located within the watershed. Sources of high potential impact include underground and above ground storage tank facilities, hazardous materials transfer and storage, and landfills, all of which share the possibility of leakage, spill, or leaching of unwanted contaminants. Sources of moderate to low potential impact include those from agricultural operations, an inactive rock quarry, and failing septic systems. The complete Susceptibility Analysis Report is available at the HWEA's main office located at 401 E. 9th Street, Hopkinsville. For more information, please call (270) 887-1680.

Although these potential contaminant sources are within the HWEA watershed, the Moss Water Treatment Plant is able to treat the drinking water for its customers in accordance with all EPA Standards.

If you suspect anyone discharging a contaminant in an unsafe manner, please call HWEA at (270) 887-1680 or the Division of Water at (270) 824-7532.

## **Barkley Lake Water District Source Water Assessment**

The source of your drinking water is Lake Barkley, which is a surface water source. An analysis of Barkley Lake Regional Water District's water supply, indicates there are six types of potential contaminate sites with the possibility of contaminating the water supply located within the watershed are underground storage tanks, and rock quarries. Other areas of concern are the water treatment plant of the district, roads, bridges, and highways that pose a risk of the possibility of hazardous materials entering the water supply from traffic accidents, spills, and illegal dumping. In addition to households which are connected to the public waste system present a source of contamination due to the possibility of failing septic systems. Farms located within the watershed present the possibility of silation, pathogens, pesticides, and fertilizer entering the water supply. The completer plan is available at the Barklèy Lake Regional Water district billing office at 1420 Canton Road, Cadiz, Ky. 42211.

## **Todd County Water District / Logan/Todd Regional Water Commission Source Water Assessment**

Type and location of source water:

The Todd County Water District purchases all of its water from the Logan Todd Regional Water Commission (LTRWC). LTRWC produces treated water at the George W. Arnold Treatment Plant. The raw water intake is surface water located in the main channel of the Cumberland River, in Clarksville, Montgomery County, Tennessee. The protection area taken into consideration is from the LTRWC intake point to the Clarksville Water System intake upstream. Urban nonpoint source runoff may contribute contamination to the water supply by delivering sediment, oil and grease, road salt, fertilizer, pesticides, nutrients, and other contaminants to the Cumberland River. Transportation corridors pose a significant threat to water quality. Transportation accidents can release substances into the water supplies, threatening water quality. Tractor-trailers, Barges, rail cars and pipelines all have the potential for adverse impact to our water supply. A state primary road-TN 13- crosses the Cumberland River, as do the Cunningham Bridge and the L&N Railroad Bridge. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The water source for LTRWC is rated as reasonably susceptible to potential contamination. For more information regarding the LTRWC source water protection area and plan, contact LTRWC located at 248 Tower Street in Guthrie, Kentucky

# Christian County Water District 2024 CCR

## Important Information about Your Drinking Water

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 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink the 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 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 (800-426-4791).

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).

## Definitions & Acronyms

Maximum Contaminant Level (MCL): *(required definition)*

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): *(required definition)*

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 contamination.

Treatment Technique (TT):

A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Variances and Exemptions:

State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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.

## Tier 3 Public Notification

### **Availability of Monitoring Data for Unregulated Contaminants for Christian County Water District**

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants 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 Christian County Water District at (270) 886-3696 or [office@ccwd.net](mailto:office@ccwd.net).

This notice is being sent to you by Christian County Water District. KY Water System ID#: KY #024-0521 Date distributed: 6/18/2025 (cycle 1) 6/23/25 (cycle 2) 6/26/25 (cycle 3)

# 2024 Water Quality Data

The data presented in this report is from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by the 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 Level	Lowest Monthly %	Violation	Likely Source
1. Turbidity (NTU) TT * Representative samples	No more than 1 NTU* Less than 0.3 NTU 95% of samples each month. (Population >10,000)	0.16	100%	No	Soil runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration.					

## Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level Found	Range	Date of Sample	Violation Yes/No	Likely Source of Contamination
<b>Microbial Contaminants</b>							
E. coli Bacteria	0%	0	0%	N/A	N/A	No	Human and animal fecal waste
<b>Radioactive Contaminants</b>							
Combined Radium (pCi/L)	5	0	0.7	0.7 - 0.7	February 2023	No	Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Barium [1010] (ppm)	2.0	2.0	0.5	0.05 - 0.05	January 2024	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4.0	4.0	0.7	0.70 - 0.70	January 2024	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	2.45	0.376-2.45	January 2024	No	Fertilizer runoff; leaching from septic tanks; sewage; erosion of natural deposits

**Maximum Contaminant Levels (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 every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.**

Contaminant [code] (units)	MCL	MCLG	Report Level	Range	Date of Sample	Violation	Likely Source of Contamination
<b>Disinfectants/Disinfection Byproducts and Precursors</b>							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio*)	TT	N/A	1.93 (lowest average)	1.23 - 2.80 (monthly ratios <sup>+</sup> )	2024	No	Naturally present in environment
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Lowest annual average of the monthly ratios must be 1.00 or greater to meet the treatment technique.							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.52 (highest average)	0.23 - 2.43	2024	No	Water additive used to control microbes
Haloacetic acids or HAA (ppb) (Stage 2)	60	N/A	44 (high site average)	16 - 38	2024	No	By-product of drinking water disinfection
Total Trihalomethanes or TTHM (ppb) (Stage 2)	80	N/A	48 (high site average)	20 - 51	2024	No	By-product of drinking water disinfection

Secondary contaminants do not have a direct impact on the health of the consumers. They are being included to provide additional information about the quality of the water.

Secondary Contaminant	Maximum Allowable Level	Report Level	Range of Detection	Date of Sample
Aluminum	0.05 to 0.2 mg/l	0.04	0.04 to 0.04	March 2024
Chloride	250 mg/l	16	16 to 16	March 2024
Corrosivity	Noncorrosive	-0.344	-.0344 to -0.344	March 2024
Fluoride	2.0 mg/l	0.66	0.66 to 0.66	March 2024
pH	6.5 to 8.5	7.5	7.5 to 7.5	March 2024
Sulfate	250 mg/l	11.3	11.3 to 11.3	March 2024
Total Dissolved Solids	500 mg/l	244	244 to 244	March 2024

## Important Information about Lead

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. HWEA is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact HWEA at (270) 887-4246. 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>

### Lead and Copper Test Results

Contaminant (Units) [Sample Year]	Action Level (AL)	MCLG	Number of Individual Taps Over AL	90% of Taps Tested Were Less Than	Range of Samples	In Compliance?	Likely Source of Contamination
• Copper (ppm) [2021] (0 sites exceeded the AL)	1.3 ppm	1.3 ppm	0	0.076	0.000 to 0.154	Yes	Corrosions of household plumbing systems; erosion of natural deposits
0 out of 30 taps were found to have levels in excess of the copper action level of 1.3 ppm							
• Lead (ppb) [2021] (0 sites exceeded the AL)	15 ppb	0 ppb	0	0.000	0.000 to 0.002	Yes	Corrosions of household plumbing systems; erosion of natural deposits
0 out of 30 taps were found to have levels in excess of the lead action level of 15 ppb							

Lead and Copper monitoring is done together during the months of June, July, August and September.

## Lead Service Line Inventory

In accordance with the United States Environmental Protection Agency's (EPA) revised Lead and Copper Rule (LCRR), HWEA has conducted an initial inventory of service lines in our system. All customers with galvanized requiring replacement service lines were notified via postcard. A hard copy of the inventory is available at our office located at 401 E 9th St., Hopkinsville, KY 42240. More information can be found at our website <https://www.hwea-ky.com/public-awareness-statements/>.

## Unregulated Contaminants

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that 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.

	Average (ppm)	Range of Detection
Fluoride (added for dental health)	0.80	0.68 to 1.18
Sodium (EPA guidance level = 20 mg/l)	5.1	4.48 to 5.68



1 part per billion (ppb)  
1 drop of ink mixed in a 9000 gallon fuel tank truck



## Awards

- 2024 KY/TN Outstanding Operations Award – Medium-Sized Water Plant
- 2023 Kentucky Water and Wastewater Operator Association (KWWOA) - Western Chapter Outstanding Water Treatment Plant
- 2024 Governor's Safety Award
- 2024 American Water Works Association (AWWA) - Wendell R Ladue National Safety Award

## Definitions

These definitions may help you better understand the information provided in the data table. If you would like more information regarding any contaminant or help understanding what the numbers mean for you, please call our main office at (270) 887-1680.

**Below Detection Limit (BDL)** - Laboratory analysis indicates that the contaminant is not present.

**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 (ug/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.

**Picocuries per liter (pCi/L)** - a measure of the radioactivity in water.

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**90th Percentile** – 90 % of the collected samples had detectable levels at or below the indicated value.

**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.

**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.

If the amount of a contaminant exceeds a safe level in your drinking water, the Hopkinsville Water Environment Authority will notify you via newspaper, radio, social media and via our website. With notification, you will be instructed on what appropriate actions you can take to protect your family's health.

Regulated Contaminant Test Results								Barkley Lake Regional Water District	
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination		
<b>Inorganic Contaminants</b>									
Barium [1010] (ppm)	2	2	0.025	0.025 to 0.025	Aug-24	No	Drilling wastes; metal refineries; erosion of natural deposits		
Fluoride [1025] (ppm)	4	4	1.20	1.2 to 1.2	Aug-24	No	Water additive which promotes strong teeth		
Nitrate [1040] (ppm)	10	10	0.765	0.218 to 0.765	Feb-24	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits		
<b>Disinfectants/Disinfection Byproducts and Precursors</b>									
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	2.17 (lowest average)	1.57 to 2.91 (monthly ratios)	2024	No	Naturally present in environment.		
*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	1.43 (highest average)	0.15 to 2.2	2024	No	Water additive used to control microbes.		
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	30 (high site average)	19 to 39 (range of individual sites)	2024	No	Byproduct of drinking water disinfection		
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	43 (high site average)	30 to 49 (range of individual sites)	2024	No	Byproduct of drinking water disinfection.		
<b>Household Plumbing Contaminants</b>									
Copper (ppm) Round 1 sites exceeding action level 0	AL = 1.3	1.3	0.475 (90 <sup>th</sup> percentile)	0.01 to 0.886	Aug-23	No	Corrosion of household plumbing systems		
Lead (ppb) Round 1 sites exceeding action level 3	AL = 15	0	13 (90 <sup>th</sup> percentile)	0 to 46	Aug-23	No	Corrosion of household plumbing systems		
<b>Other Constituents</b>									
Turbidity (NTU) TT * Representative samples	<b>Allowable Levels</b>		<b>Highest Single Measurement</b>	<b>Lowest Monthly %</b>	<b>Violation</b>	<b>Likely Source of Turbidity</b>			
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% of monthly samples		0.11	100	No	Soil runoff			
Fluoride (added for dental health)			<b>Average</b>		<b>Range of Detection</b>				
			1.0	0.85 to 1.11					
<b>Sodium (EPA guidance level = 20 mg/L)</b>			5.4	5.41 to 5.41					

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

Secondary Contaminant	Maximum Allowable Level	Report Level	Range of Detection	Date of Sample
Aluminum	0.05 to 0.2 mg/l	0.06	0.06 to 0.06	Aug-24
Chloride	250 mg/l	14.3	14.3 to 14.3	Aug-24
Copper	1.0 mg/l	0.019	0.019 to 0.019	Aug-24
Corrosivity	Noncorrosive	-1.01	-1.01 to -1.01	Aug-24
Fluoride	2.0 mg/l	0.88	0.88 to 0.88	Aug-24
pH	6.5 to 8.5	7	7 to 7	Aug-24
Sulfate	250 mg/l	18.8	18.8 to 18.8	Aug-24
Total Dissolved Solids	500 mg/l	142	142 to 142	Aug-24

## Logan/Todd Regional Water Commission 2024 Water Quality Data

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. Unless otherwise noted, the report level is the highest level detected.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.09	100	No	Soil runoff

### Regulated Contaminant Test Results

Contaminant (code) (units)	MCL	MCL G	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
<b>Radioactive contaminants</b>							
Combined Radium (pCi/L)	5	0	1.52	1.52 to 1.52	Mar-24	No	Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.0198	0.0198 to 0.0198	Jun-24	No	Drilling wastes; metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.728	0.728 to 0.728	Jun-24	No	Water additive which promotes strong teeth.
Nitrate (ppm)	10	10	0.419	0.419 to 0.419	Feb-24	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits.
<b>Disinfection/Disinfection Byproducts and Precursors</b>							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.82 (lowest average)	1.58 to 1.95	2024	No	Naturally present in environment.
*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	2.43 (highest average)	1.6 to 3.2	2024	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample)	60	N/A	23.9 (high site)	23.9 to 23.9	2024	No	Byproduct of drinking water disinfection.
TTHM (ppb) (Stage 2) [Total trihalomethanes] (Annual Sample)	80	N/A	54.1 (high site)	54.1 to 54.1	2024	No	Byproduct of drinking water disinfection.

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.

**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.

**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.

**Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.

