2023 Water Quality Report

## Russellville Municipal Water Works

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Meetings: Russellville City Hall 1st and 3rd Tuesdays after the 1st Monday at 5:00 PM

Russellville purchases water from Logan/Todd Regional Water Commission (LTRWC) located in Guthrie, KY. LTRWC treats surface water from the Cumberland River with a raw water intake located in Clarksville, TN. A small portion of downtown Clarksville is located near the intake, thereby potentially contributing urban runoff of sediment, oil and grease, road salt, fertilizers, pesticides, nutrients, toxics, and other contaminants. Transportation corridors pose a significant threat to water quality due to the risk of accidents releasing substances into the river. A state primary road - TN 13 - crosses the Cumberland River, as do the Cunningham Bridge and the L&N Railroad bridge. For more information regarding the LTRWC source water protection area and plan, contact LTRWC at 270-483-6990 or contact the central office of the TN Division of Water Supply. For information about contaminant sources further upstream, see Clarksville (TN) Water System's Source Water Assessment.

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).

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).

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.

## 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.

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 - Logan/Todd Regional Water Commission									
Contaminant			Report	Range		Date of		Likely Source of	
[code] (units)	MCL	MCLG	Level	of Detection		Sample	Violation	Contamination	
Barium [1010] (ppm)	2	2	0.0239	0.0239 to	0.0239	2023	No	Drilling wastes; metal refineries; erosion of natural deposits	
Fluoride [1025] (ppm)	4	4	0.804	0.804 to	0.804	2023	No	Water additive which promotes strong teeth	
Nitrate [1040] (ppm)	10	10	0.321	0.321 to 0.321		2023	No Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits		
Disinfectants/Disinfect	ion Bypr	oducts and Pr	ecursors						
Total Organic Carbon (ppm (measured as ppm, but reported as a ratio)	neasured as ppm, but TT* N/A (1		1.79 (lowest average)	1.67 to 1.85 (monthly ratios)		2023	No	Naturally present in environment.	
*Monthly ratio is the % TC	C remova	l achieved to th	ne % TOC r	emoval requi	red. Annual a	verage must	oe 1.00 or g	greater for compliance.	
Other Constituents									
Turbidity (NTU) TT	Allowable		Highest Single		Lowest	Violation			
* Representative samples	Levels		Measurement		Monthly %		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% of monthly samples		0.077		100	No	Soil runoff		

Regulated Contaminant Test Results Russellville Municipal Water Works										
Contaminant			Report	Range		Date of		Likely Source of		
[code] (units)	MCL	MCLG	Level	of Detection		Sample Violation		Contamination		
Chlorine	MRDL	MRDLG	1.84						Water additive used to control	
(ppm)	= 4	= 4	(highest	1.01	to	2.22	2023	No	microbes.	
			average)							
HAA (ppb) (Stage 2)			38						Byproduct of drinking water disinfection	
[Haloacetic acids]	60	N/A	(high site	24	to	60	2023	No		
			average)	(range o	f indiv	vidual sites)				
TTHM (ppb) (Stage 2)			45						D	
[total trihalomethanes]	80	N/A	(high site	23	to	67	2023	No	Byproduct of drinking water disinfection.	
			average)	(range o	f indiv	vidual sites)			dismirection.	
Household Plumbing Co	ntamina	nts				,		,		
Copper [1022] (ppm) Roun	AL =		0.069						C	
sites exceeding action level	1.3	1.3	(90 <sup>th</sup>	0.003	to	0.203	Jul-22	No	Corrosion of household plumbing systems	
0			percentile)							
Lead [1030] (ppb) Round 1	AL =		0						C	
sites exceeding action level	15	0	(90 <sup>th</sup>	0	to	92	Jul-22	No	Corrosion of household plumbing systems	
1			percentile)						prunonig systems	

Unregulated Contaminants (U	CMR 5)	average	ra	ange (	date	
perfluorobutanoic acid (PFBA)		0.002	0	to	0.0054	Apr-23

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.