# Todd County Water District Water Quality Report 2019

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Meeting location and time: 2201 New HWY 68 West Elkton, KY 42220 Last Monday of each month at 4:00 PM

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. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. 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. Immunocompromised 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:**

If present, elevated levels of 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 public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

## **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 13crosses the Cumberland River, as do the Cunningham Bridge and the L&N Railroad Bridge. Water sources have bee 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.

### Cryptosporidium:

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, 100 percent removal cannot be guaranteed. Our monitoring indicated the presence of one of these organisms in our source water. Current test methods do not allow us to determine if the organism is dead or alive or if it was capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immunocompromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Cryptosporidium must be ingested for it to cause disease, and may be passed through means other than 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.



# Todd County Water District 2019 Water Quality Data KY1100944

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. The following contaminants were detected by Logan Todd

Regional Water Commission, 7 District.	Turbidity,Ba	arium,Floride, 1	Nitrate, Total	Orgainc Carb	on and C	ryptospor	idium. All o	ther contan	inants where detected by Todd County Water
	Alle	owable	Highest Sin	gle		Lowest	Violation		
	L	evels	Measureme	nt	2	fonthly %	•`		Likely Source
Turbidity (NTU) TT	No more that	un 1 NTU*							
* Representative samples	Less than 0.	3 NTU in	0.0	84		100	No		Soil runoff
of filtered water	95% of mor	thly samples							
<b>Regulated Contaminant</b>	t Test Res	sults							
Contaminant Foodel (unite)	MCI,	MCL'G	Report Level	of I	Range		Date of Sample	Violation	Likely Source of Contomination
Microbiological Contan	ninants						1		
Inorganic Contaminant	S								
Barium									
[1010] (ppm)	2	2	0.021	0.021	to	0.021	Jul-19	No	Drining wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm)	AL =		0.06						
sites exceeding action level	1.3	1.3	(90 <sup>th</sup>	0.002	ťo	0.108	Aug-19	No	Corrosion of household plumbing systems
0			percentile)						
Fluoride									
[1025] (ppm)	4	4	0.719	0.719	to	0.719	Jul-19	No	Water additive which promotes strong teeth
Nitrate									Datilization for localization continues
[1040] (ppm)	10	10	0.168	0.168	to	0.168	May-19	No	sewage; erosion of natural deposits
Disinfectants/Disinfection	on Bypro	ducts and P	recursors						
Total Organic Carbon (ppm)			1.26						
(measured as ppm, but	$TT^*$	N/A	(lowest	1.50	to	1.81	2019	No	Naturally present in environment.
reported as a ratio)			average)	(mon	thly ratios				
*Monthly ratio is the % TOC re	emoval achie	eved to the % T	OC removal re	equired. Annu	al average	must be	1.00 or greate	r for comp	iance.
(nnm)			1.JT (highest	0 51	5	2 09	2019	N	Water additive used to control microbes.
(ppm)		-	average)	0.51	5	2.07	2017	140	
HAA (ppb) (Stage 2)			(high site						
[Haloacetic acids]	60	N/A	average)	21	ť	33	2019	No	Byproduct of drinking water disinfection
			36	(range of i	ndividual	sites)			
TTHM (ppb) (Stage 2)	1		(high site						
[total trihalomethanes]	80	N/A	average)	33	ť	80	2019	No	Byproduct of drinking water disinfection.
Other Contaminants			<sup>40</sup>	(range or r		ontes)			
Cryptosporidium	0	TT	1		_	2	2019	See	
[oppying/T]		(00% ramoval)	(nocitive o	complee	(no of e	amplac		note	Human and animal fecal waste
We are remired to monitor	the cource	of vour drinki	postor for f	mentoenoridi	(110. 01 s	dar to dat	ermine whe	her treatm	ont at the water treatment plant is sufficient
*We are required to monitor to adequately remove Cryptos	sporidium f	of your drinkii 'rom your drin	ng water for C king water.	ryptosporid	um in or	der to det	ermine whe	ther treatn	ent at the water treatment plant is sufficient
This report will not be ma	ailed. Cop	ies are availa	able in our o	office. If you	u would	like a co	opy by mai	l, please	contact our office.
Some or all of these definition Maximum Contaminant Leve	ins may be f I (MCL) - th	ound in this rep e highest level	p <b>ort:</b> of a contamina	ant that is allo	wed	<b>Parts pe</b> 2,000,00	<b>r trillion (ppt</b> 10 years, or a	:) - one par single penr	t per trillion corresponds to one minute in y in \$10,000,000,000.
in drinking water. MCLs are si treatment technology. Maximum Contaminant Leve	et as close t I Goal (MCL	o the MCLGs as G) - the level of	feasible using a contaminan	the best avai t in drinking v	lable vater	Parts pe minute i Picocuri	r quadrillion n 2,000,000,( es per liter (p	( <b>ppq)</b> - one 200 years o <b>Ci/L)</b> - a m	part per quadrillion corresponds to one r one penny in \$10,000,000,000,000. easure of the radioactivity in water.
		-	00110011011				A second s		

below which there is no known or expected risk to health. MCLGs allow for a margin of

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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. 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 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.

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.

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.

Treatment Technique (TT) - a required process intended to reduce the level