

Annual Drinking Water Quality Report

BVU Authority
PWSID No. 1520070

WATER QUALITY RESULTS

Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Violation (Y/N)	Range	Date of Sample	Typical Source of Contamination
Nitrate (ppm)	10	10	0.96	N	58 – 0.96	2018	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.76	N	ND – 0.76	2018	Water additive which promotes strong teeth
Barium (ppm)	2	2	0.041	N	0.027 – 0.041	2018	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Combined Radium (pCi/l)	0	5	1.4	N	0.5 – 0.8	2014	Erosion of Natural Deposits
Alpha Emitters (pCi/l)	0	15	1.4	N	ND – 1.4	2014	Erosion of Natural Deposits
Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.44	N	1.23 – 1.57	2018	Water additive used to control microbes
Total Organic Carbon	NA	TT, met when ≥ 1	1.00	N	-	2018	Naturally present in the environment
Haloacetic Acids (ppb)	NA	60	70	N	34 – 70	2018	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	NA	80	77	N	35 – 77	2018	By-product of drinking water disinfection
Turbidity (NTU)	NA	TT, 1 NTU Max	0.14	N	0.01 – 0.14	2018	Soil runoff
		TT, ≤ 0.3 NTU 95% of the time	100%	N	NA		

Contaminant (units)	MCLG	Action Level	90 th Percentile	Date of Sampling	# of Sampling Sites Exceeding Action Level	Typical Source of Contamination
Lead (ppb)	0	AL – 15	3.1	2018	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.0868	2018	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Name	Reported Level	Range	
		Low	High
Unregulated Contaminant Monitoring*			
Aggregate Organic Compounds Total Organic Carbon (ppb)	2100	ND	2100
Manganese (ppb)	57	ND	57
Bromochloroacetic Acid (ppb)	4.2	1.5	4.2
Bromodichloroacetic Acid (ppb)	3.0	1.5	3.0
Monobromoacetic Acid (ppb)	0.38	ND	0.38
Dichloroacetic Acid (ppb)	39	4.5	39
Monochloroacetic Acid (ppb)	2.7	ND	2.7
Trichloroacetic Acid (ppb)	31	5.9	31

*Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

ADDITIONAL INFORMATION FOR 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. The **Clear Creek Waterworks** 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature 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>.

In 2016, the **Washington County Service Authority** began monitoring for Cryptosporidium in the source water (before treatment) at the Middle Fork of the Holston River water treatment plant and at the Chilhowie/Washington County Service Authority water treatment plant as required by EPA's Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). Cryptosporidium is a microscopic parasite found in surface water throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Under the LT2ESWTR, the average Cryptosporidium concentration determines if additional treatment measures are needed. Twenty-four samples are required for analysis over a two-year period. During 2018, the average Cryptosporidium concentration in the raw water at the Middle Fork of the Holston River water treatment plant was 0.033 oocysts per liter for the 9 samples collected. During 2018, the no Cryptosporidium were detected in the 9 raw water samples collected at the Chilhowie/WCSA Regional water treatment plant. While our monitoring indicates the presence of these organisms in our source water (before treatment), the current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Based on the Cryptosporidium monitoring results so far and the current performance of the treatment plant, we anticipate meeting the future treatment requirements of the LT2ESWTR.