



## 2017 Annual Drinking Water Quality Report Sevierville Water Department

We're pleased to present to you this year's **Annual Water Quality Report**. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our source of water is from the **French Broad River System**. Our water plant is a state of the art membrane filter treatment facility which will continue to deliver safe drinking water.

Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation (TDEC), has prepared a Source Water Assessment Program (SWAP) Report for the water supply serving water to this system. Our water was rated as somewhat susceptible to potential contamination. The Source Water Assessment Plan can be viewed online at [http://www.tn.gov/environment/water/water-supply\\_source-assessment.shtml](http://www.tn.gov/environment/water/water-supply_source-assessment.shtml) or call TDEC at 1-888-891-TDEC (8332) to obtain copies.

This report shows our water quality and what it means. If you have any questions about this report, please contact Shane Carr, Chief Water Plant Operator at 865-868-1538. We want our valued customers to be informed about their water. Copies of this report are available over the Internet at the City of Sevierville Web Site. Este informe contiene información muy importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. Sevierville Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The table on the following page shows the results of our monitoring for the period of January 1 to December 31, 2017. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose 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 at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). 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. Sevierville Water Department is responsible for providing high quality drinking water, but can't control the variety of materials used in plumbing components. When your water has been setting in your pipes for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the 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, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

In the table found in this report you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* – one part per million corresponds to one minute in two years.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years.

*Parts per trillion (ppt) – or Nanograms per liter (Nanograms/liter)* – one part per trillion corresponds to one minute in 2,000,000 years.

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

*Millirems per year* - Measure of radiation absorbed by the body.

*Million Fibers per liter (MFL)* – million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

*Nephelometric Turbidity Unit (NTU)* – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU are just noticeable.

*Parts per quadrillion (ppq) or Picograms per liter (Picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years.

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

*Treatment Technique (TT)* – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* – The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* – The “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

*MRDL*- Maximum Residual Disinfectant Level means a level of a disinfectant added for water treatment that may not be exceeded at the customers tap without an unacceptable possibility of adverse health effects.

*MRDL (G)* - Maximum Residual Disinfectant Level Goal- The level of disinfectant below which there is no known or expected risk to health.

### Water Quality Data

Contaminants	MCLG in CCR Units	MCL in CCR Units	Level Found CCR Units	Detection Range	Violation	Sample Date	Typical Source of Contaminants
Chlorine	MRDLG <4 ppm	MRDL 4 ppm	1.17 ppm (Avg)	.40 – 1.92 ppm	No	2017	Disinfectant added to water to inactivate microorganisms
Chlorine Dioxide	0 ppm	.80 ppm	.80 ppm	ND - .80ppm	No	2017	Disinfectant added to water to inactivate microorganisms, and as a sequestering agent for iron and manganese
Total Coliform	0	<0 positive samples	*0	NA	No	2017	Naturally present in the environment
Turbidity	N/A	< 0.150 ntu	.083 ntu	.003 - .039 ntu	No	2017	Soil runoff

Radioactive Contaminants:							
Radium 226/228 (Combined)	0 pCi/l	5 pCi/l	.942 pCi/l	0 - 0.942 ppm	No	2017	Erosion of natural Radium deposits
Gross Alpha	0 pCi/l	15 pCi/l	.061 pCi/l	0 - 0.061 ppm	No	2017	Radioactivity Alpha particle emissions
Inorganic Contaminants:							
Chlorite	0 ppm	1 ppm	.75 ppm	0.0 – 0.75 ppm	No	2017	By - Product of drinking water chlorination using chlorine dioxide
Copper	< 1.3 ppm	AL 1.3 ppm	90 <sup>th</sup> %= .57 ppm	.027 - .57 ppm	No	2017	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	< 2 ppm	4 ppm	1.3 ppm	0.0-1.3 ppm	No	2017	Erosion of natural deposits, water additive, promotes strong teeth, discharge from fertilizer and aluminum factories
Iron	0 ppm	.3ppm	.044 ppm	0.0-0.044 ppm	No	2017	Naturally present in the environment
Manganese	0 ppm	.05 ppm	.032 ppm	0.0-0.032 ppm	No	2017	Naturally present in the environment
Lead	0 ppb	AL 15 ppb	90 <sup>th</sup> %= .ppb	ppb	No	2017	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	10 ppm	10 ppm	.35ppm	ND - .35 ppm	No	2016	Runoff from fertilizer, leaching from septic tanks, sewage, erosion of natural deposits
Sodium	< 20 ppm	20 ppm	14.3 ppm	ND-14.3 ppm	No	2016	Naturally present in the environment (MCL and MCLg are EPA pending)
Organic Contaminants:							
TTHM Trihalomethanes	0 ppb	80 ppb	50.3-pp (Avg.)	35.0- 88.7ppb	No	2017	By - Product of drinking water chlorination
HAA5 Haloacetic Acids	0 ppb	60 ppb	4.4 ppb (Avg.)	2.2-9.4 ppb	No	2017	By – Product of drinking water chlorination

#### About the data:

The data presented in this table is from testing done between Jan 1 thru Dec 31, 2017. We monitor for some contaminants less than once per year and for those contaminants, the date of the last sample is shown in the table. We met the treatment technique for turbidity in 2017 with 100% of the samples less than 0.3 NTU. Out of 30 sites sampled for lead and copper we had 0 exceed the MCL action level. Out of 360 sites sampled for total coliform and E.Coli, we had 0 samples test positive in 2017.

Insert ID: CCR-16 (Amended)

*Unregulated Contaminants	Level Detected	Range of Detection	Unit Measurement	Date of Sample	Violation	MCLG	MCL	Typical Source of Contaminants
Vanadium	<.25 Avg	.20-.30	ppb	2015	NO	N/A	N/A	
Strontium	58.5Avg.	47-70	ppb	2015	NO	N/A	N/A	
Chromium, Hexavalent	.055 Avg.	.050-.060	ppb	2015	NO	N/A	N/A	
Chlorate	285Avg.	280-290	ppb	2015	NO	N/A	N/A	

#### Unregulated Contaminants

\*Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.

City of Sevierville Water Department will be collecting samples for the EPA UCMR3 testing to collect data for contaminants suspected to be present in