



This report is designed to inform you of the water quality that the Sevier County Water Department delivers to you and your neighbors. We would like you to understand the efforts that we make to supply you and your family with safe and dependable drinking water.

Our water is safe. The numerous water quality tests performed in the distribution system in 2016 revealed that the water meets and exceeds all State and Federal drinking water quality standards and that all drinking water constituents that were tested were at safe levels. The tables in this report show summaries of the test results. This year the Sevier County Water Department purchased water from Newport Utilities, the City of Gatlinburg, the City of Pigeon Forge, and the Sevierville Water Department. If you live in east Sevier County along **Jones Cove, Pearl Valley, Dixon Branch, Cedar Bluff, or Nun's Cove**, your water comes from Newport Utilities. If you live along **Birds Creek**, your water comes from the City of Gatlinburg. If you live along **Sugarloaf, Goose Gap, Sharp Hollow, or Wears Valley**, your water comes from the City of Pigeon Forge. If you live near **Boyd's Creek, Allensville, Lane Hollow, Jayell, Flat Creek, Sims, or Thomas Cross**, your water comes from the Sevierville Water Department.

Our Water Sources

Our water is surface water drawn from the French Broad River, West Prong of the Little Pigeon River, and Douglas Lake. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water sources to potential contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to potential contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as *reasonably susceptible*, *moderately susceptible*, or *slightly susceptible* based on geologic factors and human activities in the vicinity of the water source. The French Broad River is rated *reasonably susceptible* and Douglas Lake and West Prong of the Little Pigeon are rated *moderately susceptible* to potential contamination.

For an explanation of Tennessee's SWAP, the Source Water Assessment summaries susceptibility scorings, and the overall TDEC report to EPA go to <https://www.tn.gov/environment/article/wr-wq-source-water-assessment>

Information about Source 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. Types of contaminants that may be present in source water include the following:

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

Information about Drinking Water

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 (EPA) Safe Drinking Water Hotline (1-800-426-4791).

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Regulations

The Tennessee State government and EPA require all water suppliers to sample, test, and report on water on a regular basis to ensure your safety. We have met all State and Federal requirements. Results of unregulated contaminant analysis are available upon request.

In order to ensure that tap water is safe to drink, EPA and TDEC prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Our water suppliers' treatment processes are designed to reduce any such substances to levels well below any health concern. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

You Can Participate

The Sevier County Water Committee often meets on the first Thursday of the first full week each month at 3:00 p.m. at the Sevier County Courthouse, 125 Court Avenue, Room 100E. The meeting schedule is posted on the website. www.seviercountyttn.org. Please feel free to attend these public meetings.

Vulnerability to Contaminants

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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care 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).

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. Sevier County Water Department 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

For more information about your drinking water or Water Committee meetings, please call Roger Sims, Sevier County Water Superintendent, at (865) 774-3623 or visit the website at www.seviercountywater.com

Flushing unused or expired medicines can be harmful to your drinking water. <https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals>



Definitions

- **MCL** - Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCL is set as close to the MCLG as feasible using the best available treatment technology. To understand the possible health effects described for many regulated constituents, 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.
- **MCLG** - Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allows for a margin of safety.
- **MRDL** - Maximum Residual Disinfectant Level is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **MRDLG** - Maximum Residual Disinfectant Level Goal is 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.
- **AL** - Action Level is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **TT** - Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Below Detection Level (BDL)** - Laboratory analysis indicates that the contaminant is not present at a level that can be detected.
- **Non-Detects (ND)** - Laboratory analysis indicates that the contaminant is not present.
- **Parts Per Million (ppm) or Milligrams Per Liter (mg/l)** - Explained as a relation to time and money as 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** - Explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Picocuries Per Liter (pCi/L)** - Picocuries Per Liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Million Fibers Per Liter (MFL)** - Million Fibers Per Liter is a measure of the presence of asbestos fibers that are longer than 10 microns.
- **Non-Detects (ND)** - Laboratory analysis indicates that the constituent is not present

Most Recent Water Quality Information

Sevier County Water Department (All Water Customers)

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0		2016	CFU/ml	0	<2 positive samples	Naturally present in the environment
TTHM [Total trihalomethanes] ³	No	69.33 avg.	21-120	2016	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	24.55 avg.	8-38	2016	ppb	N/A	60	By-product of drinking water disinfection
Chlorine	No	1.21 avg	0.80-2.10	2016	ppm	4	4	Water additive used to control microbes

Newport Utilities (Jones Cove, Pearl Valley, Richardson Cove, Dixon Branch, Cedar Bluff, Bogard, etc.)

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity ¹	No	0.11	.02-.11	2016	NTU	N/A	TT	Soil runoff
Copper	No	90th% = 0.095		2015	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.69	0.64-0.72	2016	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead ²	No	90th% = 1.1		2015	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	11.9		2016	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
Total Organic Carbon	No	51% removal	36% - 62% removal	2016	ppm	TT	35% removal	Naturally present in the environment

City of Pigeon Forge Water Department (Sugarloaf, Goose Gap, Sharp Hollow, Wears Valley, Lost Branch, Little Cove, Lyon Springs, etc.)

Unregulated Contaminant *	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Chlorate	No	Avg. 320	310-330	3/12/14 6/11/14	ppb	N/A	N/A	
Strontium	No	Avg. 74.25	68.8-79.7	3/12/14 7/7/14	ppb	N/A	N/A	
Chromium VI	No	Avg. 0.06	0.04-0.08	3/12/14 6/11/14	ppb	N/A	N/A	
Chromium(Total)	No	Avg. <0.2	<0.2	3/12/14 6/11/14	ppb	N/A	N/A	
Cobalt	No	Avg. <1	<1	3/12/14 6/11/14	ppb	N/A	N/A	
Molybdenum	No	Avg. <1	<1	3/12/14 6/11/14	ppb	N/A	N/A	
Vanadium	No	Avg.<0.2	<0.2	3/12/14 6/11/14	ppb	N/A	N/A	

* Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist 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 Pigeon Forge Water Department Continued

Regulated Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity ¹	No	0.05 NTU 0.03 avg	0.02 – 0.05	2016	NTU	N/A	TT	Soil runoff
Copper	No	90% = 0.11		8/27/14	ppm	1.3	AL=1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.61 avg	0.21 – 1.17	Daily in 2016	ppm	4	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead ²	No	90% = 0.0023		8/27/14	ppb	0	AL=15 ppb	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	10.8		1/25/16	ppm	N/A	N/A	Naturally present in the environment.
Total Organic Carbon ⁴	No	38.0% removal 1.34 avg.	1.00 - 1.90	2016	ppm	N/A	TT	Precursor for control of disinfection by-products.

City of Gatlinburg Water Department (Birds Creek, Old Birds Creek, Charles Lewis Way, etc.)

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity ⁵	No	.30 NTU	0.06 to .30	2016	NTU	N/A	TT	Soil runoff
Asbestos	No	BDL		4/20/2011	MFL	0	7 MFL	Decay of asbestos cement pipe, erosion of natural deposits
Copper ²	No	90% = 0.045		9/2/2014	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	.79avg 4qtrs	.77 - .81 ppm	2016	ppm	4	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead ²	No	90% = 2.5		9/2/2014	ppb	0	AL=15ppb	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	10 ppm		1/5/2016	ppm	N/A	N/A	Naturally Present in the environment.
Nitrate as Nitrogen	No	ND		11/2/2016	ppm	10	10 ppm	Runoff from fertilizer, leaching from septic tanks, sewage, erosion of natural deposits
Total Organic Carbon ⁶	No	0.69	.53 to .69	2016	ppm	N/A	TT	Precursor for control of disinfection by-products.

Sevierville Water Department (Allensville, Lane Hollow, Millican Grove, Flat Creek, Black Oak, Sims, Thomas Cross, Jayell, Boyds Creek, etc.)

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity	No	0.084	0.013-0.084	2015	NTU	N/A	<0.150	Soil runoff
Chlorite	No	0.77	ND-0.90	2015	ppm	0	1	By-product of drinking water chlorination
Copper	No	90th% = 0.65	0.16-0.87	2014	ppm	< 1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	No	.67	0.43-.92	2015	ppm	<2	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Iron	No	0.023		2015	ppm	0	0.3	Naturally present in the environment
Manganese	No	0.022		2015	ppm	0	0.05	Naturally present in the environment
Lead	No	90th% = 0.003	ND-6.2	2014	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	0.42	ND-0.48	2015	ppm	10	10	Runoff from fertilizer, leaching from septic tanks, sewage, erosion of natural deposits
Sodium	No	9.56	ND-9.6	2015	ppm	<20	20	Erosion present in the environment (MCL and MCLG are EPA pending)
Radium 226/228	No	0.76		2015	pCi/l	0	5	Erosion of natural Radium deposits
Gross Alpha	No	1.9		2015	pCi/l	0	15	Radioactivity Alpha particle emissions

¹ 100% of the samples were below the turbidity limit. Turbidity is a measure of the cloudiness of the water. Turbidity is a good indicator of the effectiveness of our filtration process.

² During the most recent round of lead and copper testing, none of the 30 households sampled contained concentrations exceeding the action level.

³ While your drinking water meets EPS’s standard for trihalomethanes, it does contain low levels in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

⁴ During calendar year 2016, The City of Pigeon Forge was required to achieve a 35% reduction in TOC (Total Organic Carbon). Their annual average reduction for calendar year 2016 was 38.0%. With treated or source water TOC being <3.0 mg/l, they met the Treatment Technique requirement for Total Organic Carbon in 2016.

⁵ To comply with TT, 95% of turbidity samples must be less than 0.3 NTU. Gatlinburg’s filter plant met this standard in 99.9% of samples taken during 2016.

⁶ During the calendar year 2016, Gatlinburg’s system was required to achieve a 35% reduction in TOC. They met the treatment technique for TOC.