

CITY OF SPRING HILL
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SPRING HILL, TN 37174



Spring Hill Water System Water Quality Report 2016

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. Spring Hill 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/lead/protect-your-family%23water%23water>



THINK BEFORE YOU FLUSH!

Flushing unused or expired medicine can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's water ways by disposing in one of our permanent pharmaceutical take back bins. There are nearly 100 take back bins located across the state, to find a location please visit <https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals>

Is my drinking water safe?

Yes, our water meets all of EPA's health standards. We have conducted over 24,200 tests for over 80 contaminants that may be in drinking water. As you will see in the chart, we only detected nine (9) of those contaminants. They were all at safe levels.

What is the source of my water?

Your water, which is surface water, comes from the Duck River. Our goal is to protect our water from all contaminants. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving this water system. The SWAP Report assesses the susceptibility of public water supplies to *potential* contamination. 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. A source water assessment by the Spring Hill

Water Department and TDEC has been completed. Your water source has been rated as *slightly susceptible* to potential contamination. An explanation of this report can be viewed online at <http://www.tn.gov/environment/article/wr-wq-source-water-assessment> or you may contact the TDEC at 1-888-891-TDEC to obtain copies of specific assessments.

Why are there contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Community water systems are required to report of any contaminants; however, bottled water companies are not required to comply with this regulation. 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 Safe Drinking Water Hotline (800-426-4791)

For more information about your drinking water locally, please call Caryl Giles. (931) 489-5791

How can I get involved?

The Spring Hill Board of Mayor and Aldermen meets on the 3rd Monday of every month at Spring Hill City Hall. Please feel free to come and participate in all meetings.

Is our water system meeting other rules that govern our operations?

The State of Tennessee and Environmental Protection Agency requires us to perform tests and report on our water on a regular basis to insure its safety. We have met all of these requirements. We want you to know that we adhere to all the rules governing drinking water.

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



Do I Need To Take Special Precautions?

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 for infections. These people should seek advice about not only their drinking water, but also 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 (800-426-4791).

Other information

All water, including bottled water, contains some level of dissolved contaminants. The presence of these does not necessarily indicate the water poses a health risk. We strive to maintain the treatment standards to prevent this. Spring Hill Water System employees involved in the treatment and distribution of the drinking water, work around the clock to provide top quality water to every tap. We ask that all of our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.



Cross Connection

Be aware and never cross connect your safe drinking water with a source that could be contaminated. This includes wells that have not been tested and garden hoses hooked to lawn chemicals. A back-siphonage of water or a faulty valve could allow dangerous chemicals to enter your safe drinking water supply. If you have a well or use chemicals that come in contact with the public's safe drinking water, you must install a backflow prevention device and have it tested annually to insure that it is in proper working condition. A backflow prevention device will separate and not allow your safe drinking water to come into contact with anything unsafe.

Cryptosporidium is a microbial parasite which is found in surface (River Water) water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water indicated the presence of cryptosporidium in 0 out of 0 samples tested. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791).



City of Spring Hill Water Quality Report - 2016

The data presented in this report is from testing done between January 1, 2016 and December 31, 2016.

Some of the contaminants are monitored less than once per year, for those the date of the last sample is shown on the table

Contaminant	Violation Y/N	Level Detected	Range of Detection	Date of Sample	Units	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (5)	No	None	None	Jan-Mar 2016	----	0	no more than 5%/month	Naturally present in the environment
Revised Total Coliform Rule (RTCR) (5)	No	None	None	Apr-Dec 2016	—	0	TTT	Naturally present in the environment Rule effective April 1, 2016
Turbidity (1)	No	0.045 Average	.0117*	2016	NTU	N/A	TT	Soil Runoff
Total Organic Carbon (2)	No	1.89 Average	1.14–2.77	2016	PPM	N/A	TT	Naturally present in the environment
Fluoride	No	.012 Average			PPM			Spring Hill no longer fluoridates. Value is natural fluoride present.
Sodium	No	4.40 Average	3.97-4.83	2016	PPM	N/A	N/A	Erosion of natural deposits
Barium	No	.0202	----	2016	PPB	2.0	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate	No	0.792	----	2016	PPM	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Lead (3)	No	BDL**	BDL – 7.6	2016	PPB	15	AL=15	Erosion of natural deposits; Corrosion of household plumbing
Copper (3)	No	.0911**	.0020 - .1380	2016	PPM	1.3	AL=1.3	Erosion of natural deposits; Corrosion of household plumbing
Total Trihalomethanes	No	46.6 Max LRAA Site 203	23.1 – 81.4 (6)	2016	PPB	0	80	By products of drinking water chlorination
Total Haloacetic Acids	No	35.0 Max LRAA Site 203	23.4 – 41.2	2016	PPB	0	60	By products of drinking water chlorination
Gross Alpha	No	0.29	BDL - 0.29	2012	pCi/L	0	15	Erosion of natural deposits
Radium 226-228	No	0.50	BDL – 0.50	2012	pCi/L	0	5	Erosion of natural deposits
Alkalinity	No	112 Average	62 -172	2016	PPM	N/A	N/A	Capacity of water to neutralize acids
Hardness (4)	No	114 Average	76-172	2016	PPM	N/A	N/A	Erosion of natural deposits
Disinfectant Residual	Violation Y/N	Level Detected	Range of Detection	Date of Sample	Units	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	2.37 Average	1.17 - 2.84	2016	PPM	4.0	4.0	Water Additive used to control microbes

- (1) * Highest single measurement for turbidity. We met the treatment technique with 100.0% of monthly samples below the turbidity limit of 0.15 NTU in 95%.
- (2) TOC = Total Organic Carbon; 41.3% Average Reduction Required, 20.6% Lowest Reduction Achieved we met the TT requirements for TOC in 2016.
- (3) During the most recent round of lead and copper testing (2016), 0 out of 30 households sampled contained concentrations exceeding the action level. ** 90th percentile. Next sampling period will be in 2019.
- (4) Average 6.67 grains per gallon (4.45 – 10.06 grains per gallon)
- (5) We had zero positive Total Coliform samples during the sampling period of January 1, 2016 through December 31, 2016. A total of 695 coliform distribution samples were analyzed in 2016. RTCR went into effect on April 1, 2016, and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.
- (6) Some people who drink water containing trihalomethanes 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.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and 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. Contaminants that may be present in source water: **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. In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

GLOSSARY

MCL - Maximum Contaminant Level, or 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. 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. MCLGs allow for a margin of safety.

MRDL - Maximum Residual Disinfectant Level 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 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, or a concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

TT - Treatment Technique or a required process intended to reduce the level of contaminants in drinking water.

TTT - Treatment Technique Trigger Requires systems to conduct assessments

Turbidity - does not present any risk to your health. SHWTP monitors turbidity, a measurement of the clarity of water, because it is a good indicator that the filtration system is functioning properly.

RTCR - Revised Total Coliform Rule

Units of Measure:

PPB - Parts Per Billion or Micrograms per liter (1 ppb = one penny in \$10,000,000 or 1 minute in 2,000 years)

PPM - Parts Per Million or Milligrams per liter (1 ppm = one penny in \$10,000 or 1 minute in 2 years)

NTU - Nephelometric Turbidity Units, a measurement of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L - Picocurie Per Liter A measurement of radioactivity

N/A - Not Applicable

ND - No Detection

BDL - Below Detection Limit

LRAA - Location Running Annual Average, Max = Maximum