



## 2017 Water Quality Report

### What is the source of my water?

Your water comes from Spring Creek Spring, Adams Spring (Ground Water under the Direct Influence of Surface Water) and the Barren River. (Surface Water).

### 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. 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 Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water, both tap water and bottle 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.

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 discharge, 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 chemical, 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 the results of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the 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.

### How can I get involved?

Our City Council meets the first Tuesday of each month at 7:00 PM at City Hall. Please feel free to participate.

**If you have Questions or for more information about your drinking water, please call us at City Hall 615-666-2194 or the Water Treatment Plant 615-666-5560**

### Relevant to your Source of Water

We're working hard to protect our water from contaminants, and working with the State to determine the vulnerability of our water supply to potential contamination. The Tennessee Dept. of Environment has prepared a Source Water Assessment Program Report for the untreated water source. The 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 geological factors and human activities in the vicinity of the water source. Our rating is moderately susceptible. An explanation of the Tennessee Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed at [www.state.tn.us/environment/dwassess.shtml](http://www.state.tn.us/environment/dwassess.shtml) or you may contact the water system to obtain copies of specific assessments. We have a Well Head Protection Plan in place to lessen the changes of contamination of our water sources.

### Do I Need to Take special Precautions?

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 under-gone 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 their personal sanitation, food preparation, handling infants and pets, and drinking water 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).

### What About Lead in my water?

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 City of Lafayette 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 the 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>

*Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien*

## Water Quality Data

### Terms & Abbreviations:

<b>MCLG</b>	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.
<b>MCL</b>	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.
<b>MRDL:</b>	Maximum Residual Disinfectant Level or MRDL: 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.
<b>MRDLG</b>	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.
<b>AL</b>	Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
<b>Below Detection Level (BDL)</b>	Laboratory analysis indicates that the contaminant is not present at a level that can be detected.
<b>Parts per million (ppm) or Milligrams per liter (mg/l)</b>	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.
<b>Parts per billion (ppb) or Micrograms per liter</b>	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.
<b>Nephelometric Turbidity Unit (NTU)</b>	Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
<b>TT</b>	Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water
<b>Turbidity:</b>	Turbidity does not present any risk to your health. We monitor turbidity, which is a measure of the cloudiness of water, because it is a good indicator that our filtration system is functioning properly.

### About the data:

Most of the data presented in this table is from testing done between 1 Jan-31 Dec 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.

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		2017		0	<2 positive samples	Naturally present in the environment
Turbidity*	NO	.06 avg.	.04 -.28	2017	NTU	N/A	TT	Soil runoff
Chlorine	NO	2.0 avg.	1.1 - 2.7	2017	ppm	4	4	Water additive used to control microbes.
Atrazine	NO	BDL		05/ 17	ppb	0	0	Run off from use of Herbicides
Copper	NO	.079 avg.	0 -.76	09 / 17	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	NO	.0001 avg.	0 – .0015	09 / 17	ppb	N/A	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	NO	2.54		11/ 17	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	NO	BDL		04 / 17	ppm	N/A	N/A	Erosion of natural deposits
Haloacetic Acids (HAA5)	NO	31 avg.	12 – 59	2017	ppb	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs)	NO	30 avg.	14 – 69	2017	ppb	N/A	80	By-product of drinking water chlorination
TOC**	NO	.30	.70 – 1.07	2017	ppm	N/A	TT	Naturally present in the environment.
Cryptosporidium***	NO	0	0 of 12 samples	2017	oocyst	N/A	N/A	Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S

**Turbidity \*** We met the Treatment Technique for turbidity with 100% of our samples were below the turbidity limit of .3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

**TOC \*\*** We met the Treatment Technique requirement for Total Organic Carbon in 2017.

**Cryptosporidium\*\*\*** Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water indicated **NO** presence of Cryptosporidium in 0 out of 12 samples tested. No Cryptosporidium were detected in finish water samples. 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)

### In Conclusion: Is my drinking water safe? Yes,

As you can see in this report, our system had zero (0) violations for the year of 2017. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned though our testing that some constituents have been detected. The EPA has determined that your water is **SAFE** at these levels. A copy of any test result can be obtained at Lafayette City Hall or the Lafayette Water Treatment Plant.