

# City of Pulaski Water System

## Water Quality Report

### 2016

#### Is my drinking water safe?

**Yes, our water meets and in fact exceeds all of EPA's health standards.** We have conducted numerous tests for over 80 **potential** contaminants that could possibly be in drinking water. As you'll see in the chart on the back, we have only detected 19 of these compounds. The compounds detected were far **below** the level of safety established by the EPA.

#### What is the source of my water?

Your water comes from Richland Creek, which is a surface water source. Our goal is to protect our source water from contaminants and to this end we have completed a Source Water Assessment Report. The report assesses the susceptibility of the source water to potential contamination. 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 source water (Richland Creek) has been rated as reasonably susceptible. For further information, the full Source Water Assessment Report is available for viewing at our office.

#### Why are there contaminants in my water?

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 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.

*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 EPA'S Safe Drinking Water Hotline at (800-426-4791).*

#### 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, can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming.
- **Organic chemical contaminants**, including synthetic and volatile chemicals, which are by-products of industrial process and petroleum production, and can also, come from gas stations, urban storm water runoff and septic systems
- **Pesticides and herbicides**, which may come from a variety of sources such as agricultural, urban storm water runoff and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activity.

*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.*

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, please call Anthony Bledsoe, Water Treatment Plant Supervisor, at 363-1730 or Terry Harrison, City Administrator.**

#### How can I get involved?

Our Pulaski City Council meets on every second and fourth Tuesday at twelve noon at City Hall. Please feel free to participate in these meetings.

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

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. We want you to know that we pay attention to all the rules and we are very much concerned with public health.

#### 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 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 (800-426-4791).

#### **Cross – Connection Info!**

Cross – connections are the links through which it is possible for contaminating material to enter a potable water supply. The contaminants enter the potable water system when the pressure of the polluted source exceeds the pressure of the potable source. This action may be called backsiphonge or backflow. Backsiphonge or backflow is the reversal of the hydraulic gradient that can be produced by a variety of circumstances. It is the primary goal of the Pulaski Water Dept. to eliminate all possible cross- connections and to ensure that our drinking water remains free of any harmful contaminants.

If you have any questions or comments, about how you can help prevent cross- connections from happening. Please call your Cross-Connection Officer, Curt Alsup @ 363-1209.

#### Water System Security

We realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, pumping stations, tanks, fire hydrants or water sources such as creeks or springs.

# Water Quality Data

## What does this chart mean?

- **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.
- **MCL:** Maximum Contaminant Levels are set at very stringent levels. 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.
- **MRDL:** 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.
- **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 the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **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.
- **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.
- **TT** – Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

**Unless otherwise noted the data presented in this table is from sampling performed during the 2016 calendar year.**

Contaminant	Violation Y/N	Highest Level Detected	Highest to Lowest	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity <sup>1</sup>	N	0.94	0.94-.01	2016	NTU	TT	TT	Soil runoff.
Total Coliform Bacteria	N	0	N/A	2016	Presence or Absent	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Total Organic Carbon <sup>2</sup>	N	2.19	2.19/1.15	12/07/16	PPM	TT	TT	Naturally present in the environment
Copper <sup>3</sup>	N	$\frac{90\%}{.023}$	N/A	09/14	PPM	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead <sup>3</sup>	N	$\frac{90\%}{.0005}$	N/A	09/14	PPM	0	AL=.015	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	N	0.415	N/A	02/16	PPM	10	10	Runoff from fertilizer use; erosion of natural deposits
Sodium	N	1.96	N/A	03/16	PPM	N/A	N/A	Naturally present in the environment
Atrazine	N	BDL	N/A	06/22/16	PPM	N/A	.003	Used as a herbicide to control unwanted weeds.
Chloride	N	9.6	N/A	5/06/14	PPM	N/A	250	Naturally present in the environment
Fluoride	N	1.3	1.3 – 0.0	2016	PPM	0	2	Erosion of natural deposits; water additive which promotes strong teeth
Barium	N	0.013	N/A	5/06/14	PPM	N/A	2.0	
SULFATE	N	8.4	N/A	5/06/14	PPM	0	250	
Dissolved Solids	N	160	N/A	5/06/14	PPM	N/A	500	
COLOR	N	1.0	N/A	5/06/14	PCU	N/A	15.0	
Chlorine	N	2.2 Avg.	3.0 – 1.0	2016	PPM	MRDL=4	MRDL=4	Water additive used to control microbes
THAA <sup>4</sup> [Total Halo-acetic acids]	N	76	51/42 LRAA	2016	PPB	N/A	60	By-product of drinking water chlorination
TTHM <sup>4</sup> [Total Trihalomethanes]	N	72	46/39 LRAA	2016	PPB	N/A	80	By-product of drinking water chlorination

Unregulated Contaminants

Contaminant	Violation Y/N	Highest Level Detected	Highest to Lowest	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Bromodichloromethane	N	0.00558	0.00558	2016	MG/L	N/A	N/A	By-product of drinking water chlorination
Chloroform	N	0.0267	0.0267	2016	MG/L	N/A	N/A	By-product of drinking water chlorination
Chlorodibromomethane	N	0.000685	0.000685	2016	MG/L	N/A	N/A	By-product of drinking water chlorination

**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 future regulation is warranted. For more information call the Safe Drinking Water Hotline at (800)426-4791.**

GLOSSARY OF TERMS AND TESTING

1. Turbidity is a measure of how cloudy the water is. We check the turbidity of the water throughout the treatment process in order to gage how well our filters are working.  
*(\*) We met the treatment technique for turbidity with 99% of monthly samples below the turbidity limit of 0.3 NTU.*
2. The organic carbon levels in the water give us clues as to how well our disinfection process is working. We met the Treatment Technique in 2015.
3. *(\*)* Per EPA regulations, we only test for lead and copper every three years. Out of the thirty sites we tested in 2014 none exceeded the action level for lead and copper.

Lead and Copper: 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. Pulaski 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 Safe Drinking Water Hotline or at [http:// www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

4. Compliance with the MCL for THAAs and TTHMs are based on an local running average of sixteen samples. The level represented in the “Highest Level Detected” column is the average for last year. 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 systems, and may have an increased risk of getting cancer.