

Fayetteville Public Utilities

Water Quality Report for 2014

Is my drinking water safe?

Yes, Fayetteville Public Utilities' water meets all of Environmental Protection Agency's (EPA) health standards. We have conducted numerous tests for over 75 contaminants that may be in drinking water. As you will see in the charts on the next two pages, we only detected 19 of these contaminants. We found all of these contaminants at safe levels.

What is the source of my water?

Your main source of water is surface water that comes from the Elk River. We also have an emergency secondary source that is ground water under the direct influence of surface water at Teal Hollow Springs. Our goal is to protect our water from contaminants, and we are working with the State to determine the vulnerability of our water source 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 Elk River source was rated as slightly susceptible to potential contamination, and Teal Hollow is moderately susceptible.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at http://www.tn.gov/environment/water/water-supply_source-assessment.shtml or you may contact Fayetteville Public Utilities (FPU) to obtain copies of specific assessments and Wellhead Protection Plans.

Why are 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's Safe Drinking Water Hotline (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.

For more information about your drinking water, please call David Posey at (931) 433-1522, extension 322.

How can I get involved?

The Fayetteville Public Utilities (FPU) Board meets on the fourth Wednesday of each month at 8:00 a.m. at the main FPU office. Meetings are open to the public and customers are welcome to address questions and comments to the board.

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

The State and EPA require FPU to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. Results of unregulated contaminant analysis are available upon request. We want you to know that we obey all the rules.

Other Information

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. Contaminants that may be present in source water include:

- 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or can 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. FPU's water treatment processes are designed to reduce any such substances to levels well below any health concern. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for 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, and 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 healthcare providers. The EPA and Center for Disease Control 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).

Lead in Drinking 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. FPU 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 two 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/safewater/lead>.

Water System Security

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to call (931) 433-1522 and report suspicious activities at any FPU utility facilities including treatment plants, pumping stations, tanks, fire hydrants, etc.

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 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 two 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 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.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **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 five 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.

ELK RIVER

<u>Contaminant</u>	<u>Violation Yes/No</u>	<u>Level Detected</u>	<u>Range of Detections</u>	<u>Date of Sample</u>	<u>Unit Measurement</u>	<u>MCLG</u>	<u>MCL</u>	<u>Likely Source of Contamination</u>
Total Coliform Bacteria	No	1	0-1	2014		0	>1 Positive Sample/Month	Naturally present in the environment
Turbidity ¹	No	0.44	0.02-0.44	Daily	NTU	N/A	TT	Soil runoff
Atrazine	No	1.1		2014	ppb	3	3	Runoff from herbicide used on row crops.
Barium	No	0.016		2014	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	No	1.39 avg.	0.35-1.77	Daily	ppm	4	MRDL =4	Water additive used to control microbes
Chlorine Dioxide	No	120	0-120	Daily	ppb	800	MRDL =800	Water additive used to control microbes.
Chlorite	No	0.752	0-0.752	Daily	ppm	0.8	1.0	By-product of drinking water chlorination
Copper ²	No	90 th % = 0.054		2014	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead ²	No	90 th % = 1.7		2014	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	No	0.65 avg.	0.54-0.75	Quarterly Samples	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

<u>Contaminant</u>	<u>Violation Yes/No</u>	<u>Level Detected</u>	<u>Range of Detections</u>	<u>Date of Sample</u>	<u>Unit Measurement</u>	<u>MCLG</u>	<u>MCL</u>	<u>Likely Source of Contamination</u>
Nitrate (as Nitrogen)	No	1.0		2014	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No	3.1		2014	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM (Total Trihalomethanes)	No	43 avg.	12-63	Quarterly	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	33 avg.	11-37	Quarterly	ppb	N/A	60	By-product of drinking water disinfection.
Total Organic Carbon ³	No	1.88 avg.	1.5- 2.6	Quarterly	ppm	N/A	TT	Naturally present in the environment.
Vanadium ⁴	No	0.2 avg.	<0.2-0.4	Aug/Nov 2014	ppb	N/A	N/A	Naturally occurs in many different minerals and in fossil fuel deposits
Strontium ⁴	No	115 avg.	110-120	Aug/Nov 2014	ppb	N/A	N/A	Naturally present in the environment
Hexavalent Chromium ⁴	No	0.0375 avg.	<0.03-0.06	Aug/Nov 2014	ppb	N/A	N/A	Discharge from steel and pulp mills; Erosion of natural deposits
Chlorate ⁴	No	245 avg.	190-300	Aug/Nov 2014	ppb	N/A	N/A	By-product of drinking water disinfection

¹ * We met the treatment technique requirement for turbidity with 96.7% of our monthly samples below the turbidity limit of 0.30 NTU. Turbidity is a measurement of the cloudiness of the water. We monitor it because it's a good indicator of the effectiveness of our filtration system.

² * During the most recent round of Lead and Copper testing, zero out of 30 households sampled contained concentrations exceeding the action level.

³ * We met the Treatment Technique requirement for Total Organic Carbon in 2014.

⁴ * These contaminants were monitored under the Unregulated Contaminant Monitoring Rule (UCMR). The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review contaminant occurrence, to guide the CCL selection process and to support the Administrator's determination of whether to regulate a contaminant in the interest of protecting public health.

FLUSHING MEDICATIONS CONTAMINATE WATER SUPPLY

Flushing unused or expired medications can be harmful to your drinking water. Proper disposal of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's waterways by disposing of them in a permanent pharmaceutical take-back bin. There are nearly 100 take-back bins located across the state, including one at the Lincoln County Sheriff's Department. To find a different location in the surrounding area, please visit: www.tn.gov/environment/sustainable-practices_unwanted-prescriptions.shtml.