



PRIMARY STANDARDS	TEAL HOLLOW	MAIN WTP	MCL	MCLG
Antimony - total	BDL	BDL	6 ppb	6
Arsenic	BDL	BDL	50 ppb	N/E
Barium	<.0074	0.18	2 ppm	2
Beryllium - total	BDL	BDL	4 ppb	4
Cadium	BDL	BDL	5 ppb	5
Chromium	BDL	BDL	100 ppb	100
Copper (2005)	(see below)		1.3 ppm*	1.3
Lead (2005)	(see below)		15 ppb*	0
Mercury	BDL	BDL	2 ppb	2
Nickel	BDL	BDL	100 ppb	N/E
Selenium	BDL	BDL	50 ppb	50
Thallium	BDL	BDL	2 ppb	0.5

SECONDARY STANDARDS	TEAL HOLLOW	MAIN WTP	MCL	MCLG
Aluminum	BDL	BDL	200 ppb	N/E
Iron	BDL	BDL	300 ppb	N/E
Manganese	BDL	BDL	50 ppb	N/E
Silver	BDL	BDL	100 ppb	N/E
Zinc	BDL	BDL	5 ppm	N/E

METALS
FPU tests for metals that may have health or aesthetic effects. Results are explained in the same units as the MCL and MCLG.

*** Action Level** - is the concentration of lead or copper in water which if met by fewer than 90 % of samples would trigger special treatment requirements. The 90th percentile values for copper and lead in Fayetteville's water are 0.64 ppm and 3.2ppb, respectively. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using your tap water. Additional information is available from the Safe Drinking Water Hotline at (800-426-4791).

The Fayetteville Public Utilities Board meets regularly on the 4th Wednesday of each month at 8:00 A.M. at the main office. These are open to the general public and customers are welcome to address questions and comments to the Board

Anion & Cation
Fayetteville Water test for these compounds to provide an overall profile of the chemical characteristics of water. This Data is also useful to commercial and industrial users.

PRIMARY STANDARDS	TEAL HOLLOW	MAIN WTP	MCL
Cyanide	BDL	BDL	200 ppb
Fluoride*	BDL	.82	2 ppm

SECONDARY STANDARDS	TEAL HOLLOW	MAIN WTP	MCL
Sulfate	BDL	BDL	250 ppm
Hardness (calcium)	NA	109	N/E
Chloride	3.6	6.1	250 ppm

UNREGULATED CHARACTERISTICS	TEAL HOLLOW	MAIN WTP	MCL
Alkalinity	62	97	N/E
Sodium (ppm)	3.0	2.4	N/E

(*Fluoride-Primary Standard relates to skeletal fluorosis.)

Microbiological --FPU Water performs microbiological tests to assure that disinfection levels will protect public health. The MCL for microbiological is <2 samples in which total coliforms are present during a month. Drinking water which meets this standard is not associated with health risks from disease-causing bacteria and should be considered safe. FPU Water collects 3 samples every week from Fayetteville's systems of water mains. Total coliform bacteria have not been detected in Fayetteville drinking water. Furthermore, Giardia and Cryptosporidium have not been detected in the water from the Elk River. FPU Water is well known within compliance with all bacteriological standards.

Nutrients - Nutrients levels are monitored because excess levels can lead to the growth of bacteria & algae.

Primary Standards	Main Plant	Teal Hollow	MCL	MCLG
Nitrate	0.25	1.8	10	10
Nitrite (1993)	0.004	0.004	1	1

Radionuclides - The FPU conducts radiological testing to ensure that the water meets all standards for these parameters. Results are measured in picoCuries per liter (pCi/L).

Primary Standards	Fayetteville	Teal Hollow	MCL	MCLG
Gross Alpha (2003)	BDL	BDL	15 pCi/L	15 pCi/L

Physical Characteristics - The FPU monitors physical characteristics for any significant changes in water quality.

Primary Standards	Teal Hollow	Main WTP	MCL
Turbidity (max. 4-hour value) (min. monthly % of samples <0.3)	0.29 100	0.29 100	<0.3 in 95% of Samples 1.0 MAX/NTU

Secondary Standards	Teal Hollow	Main WTP	MCL
pH	5.8-7.3	6.0-7.8	6.5-8.5 (std units)
Total Dissolved Solids	71	110	500 ppm
Color	1.0	2.0	15 (Pt. Co. units)

Inorganic Parameters	Teal Hollow	Main WTP	MCL
Asbestos (8/23/93)	NA	BDL	7 million fibers/L

Secondary Standards	Teal Hollow	Main WTP	MCL
MBAS	BDL	BDL	500 ppb
Odor (threshold odor number)	1.0	BDL	3

Questions About Drinking Water Quality?-

Government Agencies
Environmental Protection Agency Safe Drinking Water Hotline 1-800-426-4791

Tennessee Department of Environmental and Conservation
1-615-532-0109

Lincoln County Health Department
Director of Health ---- 1-931-433-3231

Fayetteville Public Utilities
Main Office ---- 1-931-433-1522



2007 WATER QUALITY REPORT

WHAT IS A WATER QUALITY REPORT

The Safe Drinking Water Act of 1996, administered by the (EPA), the United States Environmental Protection Agency requires all public water systems to report the analysis of their drinking water and source each year.

This report provides our customers and the Fayetteville community with the scientific data confirming the safety and wholesomeness of the water supplied by the Fayetteville Water System. In this report you will find tables of data listing different substances that are tested for in the drinking water that is supplied by the FPU Water & Sewer System.

This Water Quality Report also explains the process by which water is delivered to your home. We hope that this report will answer some of the questions that you may have about the quality of your tap water.

Sources of Drinking Water

The sources of drinking water include lakes, reservoirs, ponds, streams, wells, and in the FPU Water & Sewer System's case the Elk River and Teal Hollow Springs. As Water travels over the surface of the land or through the ground, it dissolves naturally occurring mineral and radioactive materials; and can pick up substances resulting from animal or human activities.

Impurities that may be present in source water.

- A. **Biological Contaminant**, such as viruses and bacteria, which may come from sewer treatment plants, septic tanks, agricultural livestock operations, and wildlife.
- B. **Inorganic Contaminants**, such as salts and metals, which occur naturally or result from industrial or domestic wastewater discharges, mining, farming, or oil and gas production.
- C. **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- D. **Organic Chemicals**, including synthetics and volatile organics, which are the by-products of industrial processes and petroleum production. They can also come from gas stations, urban storm runoff and septic systems.
- E. **Radioactive Materials**, which occur naturally or can be the results of oil and gas production or mining activities.

In order to insure that tap water is safe to drink, the (EPA) prescribes regulations which limits the amount of certain impurities in the water provided by the public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same level of protection to public health as water supplies. 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 the water poses a health risk. More information about contaminants and potential health affects can be obtained by calling the (EPS)'s Safe Drinking Water Hotline at (800) 426-4791.

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 at risk from infections. These people should seek advice before drinking water from their health care providers. (EPA)/(CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.



FAYETTEVILLE'S WATER IS QUALITY WATER

SOURCE WATER ASSESSMENT Fayetteville is fortunate to have two steady and relatively pure water supplies - the Elk River and 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 supplies. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving this system. This report assesses the susceptibility of public water supplies to *potential* contamination. Water sources have been rated as reasonably susceptible (high), moderately susceptible or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. Fayetteville's sources rated as follows:

Elk River (surface water source) - rated as low susceptibility to potential contamination.

Teal Hollow Springs (ground water coming from Ordovician carbonate aquifer) - our spring water rated as moderately susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program and related reports can be viewed online at www.state.tn.us/environment/dws/dwassess.php or you may contact the FPU Water Department at 1-888-891-TDEC to obtain copies of specific assessments.

THE TREATMENT PROCESS

The water provided by the FPU Water and Sewer System meets all chemical, radiological, and bacteriological water quality standards established by the (EPA) under the Safe Drinking Water Act, as amended, and by the Tennessee Department of Environment and Conservation (TDEC) under the Tennessee Safe Drinking Water Act of 1983, as amended. At the Fayetteville treatment plant, water from the river is first screened to remove large objects such as tree limbs. Chemicals known as coagulants, are added and mixed well. These chemicals do not stay in the water; instead, they cause contaminants such as mud and algae to cling to them, forming larger particles. The water then slowly flows through settling tanks where these large particles are allowed to sink to the bottom and are removed mechanically. The water from these tanks is passed through filters made of gravel, sand and anthracite. Following filtration, small amounts of chlorine and fluoride are added. Chlorine must be added to prevent bacteria from developing. Fluoride is added because it has been found to prevent tooth decay. The water from the Teal Hollow Springs comes from underground springs, so it contains no large objects, mud or algae. Therefore its treatment includes only filtration, chlorination and coagulation.

THE WATER DISTRIBUTION SYSTEM

The FPU Water System has grown to 132 miles of water mains. FPU supplies drinking water to customers in Fayetteville and certain parts of Lincoln County. In addition to its own direct customers, FPU sells water on wholesale basis to Petersburg and the Lincoln County Utility District. Water is stored in 5 reservoirs and the clearwell at the Fayetteville Water Treatment Plant, which have a combined capacity of over 4 million gallons. On an average day, 2.3 million gallons of drinking water are pumped from the two water treatment plants. On high demand days, this has risen to as much as 3.21 million gallons in a day.

WATER TESTING AND QUALITY ASSURANCE

Every day of operation, samples of river, settled and finished water are tested in FPU laboratories to ensure the highest quality for their customers. In addition to the daily tests of water leaving the plants, samples are collected and analyzed monthly to approximately 20 points in the distribution system. Additional information is available for all unregulated contaminants, upon request. If you would like more information on the quality of Fayetteville's drinking water, please call **Mark O'Neal (931) 433-1522 ext 322**.

Water Provided By The FPU Water And Sewer System Meets All Federal And State Drinking Water Standards

The following tables present the analytical results of regular sampling during the period from January 1, 2007, through December 31, 2007, and indicate the different characteristics that are monitored, the concentrations in which they were found, the maximum limits for each contaminant (as set by the EPA), and the goal for each. The sampling date is indicated for those parameters that do not require annual sampling.

KEY TO ABBREVIATIONS WITH DEFINITIONS

MCL - Maximum Contaminant Level: The highest level of a contaminant level that is allowed in drinking water. MCL's are set as close to the MCLG's feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Action Levels - The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow. This rule, which may require the water system to treat water to reduce corrosion and provide public education, applies to lead and copper. (Fayetteville has never reached an action level for any contaminant.)

Primary Standards - Primary Standards are established to protect public health. These standards include maximum contaminant levels, maximum contaminant level goals, action levels, and treatment techniques.

Secondary Standards - These guidelines are designed to assure good aesthetic quality of water. Secondary standards apply to contaminants that affect the taste, odor, or color of water, stain sinks or bathtubs, or interfere with treatment processes.

Contaminant - Any mineral, chemical, or organic matter that is suspended or dissolved in water including beneficial substances such as calcium.

T.T. - Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

NA - Does Not Apply.

ND - Not Detected at the lowest detection level.

N/E - Not Established.

BDL - Below Detection Level.

MRDL - Maximum Residential Disinfectant Level

MRDLG - Maximum Residential Disinfectant Level Goal

MEASUREMENTS

NUMBER IN THE TABLE CONCENTRATION

1 ppm	1 part per million
1 ppb	1 part per billion
1 ppt	1 part per trillion

EQUIVALENT CONCENTRATION

1 mg/L (milligram per liter)
1 ug/L (microgram per liter)
1 ng/L (nanogram per liter)

ORGANIC CHEMICALS - These materials include petroleum-based compounds, pesticides, herbicides, and other synthetic chemicals. Testing has shown that none of the regulated organics have ever been detected in water from either the Fayetteville or Teal Hollow Springs water treatment plant of the unregulated VOCS, for which no MCLs have been established, only trace concentrations of two compounds have been detected as shown in the following tables.

Unregulated Pesticides

Carbaryl	3-Hydroxycarbofuran
Methomyl	Dieldrin
Aldicarb sulfoxide	Propachlor
Aldicarb sulfone	Aldrin
Metolachlor	Dicamba
Aldicarb	Metribuzin
Butachlor	

Regulated Pesticides

Endrin	Hexachlorobenzene	Lindane
Methoxychlor	Hexachlorocyclopentadiene	Oxamyl (Vydate)
Toxaphene	Picloram	2, 4-D
2, 4, 5-TP (SILVEX)	Polychlorinated biphenyls (PCBs)	Alachlor
Pentachlorophenol	Simazine	Atrazine
Carbofuran	Benzo(a)pyrene(PAH)	Chlordane
Dalapon	DI (2-ethylhexyl) adipate	Dinoseb
Endothall	Di (2-ethylhexyl) phthalate	Glyphosate
Heptachlor	2, 3, 7, 8, - TCDD (Dioxin)	Heptachlor Epoxide
Diquat		

Regulated Volatile Organic Chemicals (VOCS)

Benzene	cis-1, 2-Dichloroethylene
Carbon Tetrachloride	Dichloroemethane
Monochlorobenzene	Para-Dichlorobenzene
Xylenes (total)	Ethylbenzene
1, 2-Dichloroethane	1, 1, 2-Trichloroethane
1, 1, 1-Trichloroethane	o-Dichlorobenzene
Trichloroethane	Styrene
Tetrachloroethylene	Ethylene Dibromide
Toluene	trans-1, 2 Dichloroethylene
1, 2, 4-Trichlorobenzene	1, 1-Dichloroethylene
Vinyl chloride	1, 2-Dibromo-3-Chloropropane

Unregulated Volatile Organic Chemicals

Bromobenzene	Chloroform (0.022ppm)	2, 2-Dichloropropane
Bromodichloromethane	Chloromethane	1, 1-Dichloropropene
(0.0035ppm)	o-Chlorotoulene	1, 3-Dichloropropene
Bromoform	p-Chlorotoulene	1, 1, 1, 2-Tetrachloroethane
Bromomethane	Dibromomethane	1, 1, 2, 2-Tetrachloroethane
Chlorodibromomethane	m-Dichlorobenzene	1, 2, 3-Trichloropropane
	1, 1-Dichloroethane	
Chloroethane	1, 3-Dichloropropane	

DISINFECTION BY-PRODUCTS - FPU monitors for disinfection by-products, for which total trihalomethanes and Haloacetic Acids are indicators. These by-products are produced as a result of disinfection chemicals combining with organic matter, for example, leaves in the source water. Samples taken from the distribution (water main) system in various areas of Fayetteville reveal an average of 46 ppb and a range from BDL ppb to 147 ppb for total trihalomethanes. The MCL is 80 ppb. And an average of 36 ppb with a range of BDL ppb-85 ppb for Haloacetic Acid (HAA5). The MCL for Haloacetic Acid is 60 ppb. The average results for Total Organic Carbons (TOC's): Raw water - 1.8mg/l Finish water - 1.3mg/l TTHMs [Total Trihalomethanes]. 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.