

GREENEVILLE WATER COMMISSION 2009 WATER QUALITY REPORT



Is my drinking water safe?

Yes we are proud to report that your water met or exceeded all State & Federal standards for drinking water during 2008. This report shows our water quality and what it means. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the treatment process and protect our water resources. We are committed to ensuring the quality of your water.

What is the source of my water?

Your water, which is surface water, comes from the Nolichucky River. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation (TDEC) have prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving this 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. The Greenville Water System sources rated reasonably susceptible to potential contamination. An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scoring and the overall TDEC report to EPA can be viewed at www.state.tn.us/environment/dws/dwassess.shtml or you may contact the Water System or 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. The presence of contaminants does not necessarily indicate that the 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)**.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OUR OPERATIONS?

In order to ensure the tap water is safe to drink, EPA and the Tennessee Department of 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. We have always met all these requirements. We want you to know that we follow all drinking water regulations carefully in order to provide you with clean, safe drinking water.

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 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 from their personal sanitation, food preparation, handling infants and pets, and drinking water from their health care provider. 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:

The sources of drinking water (both tap & 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 materials. 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 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 synthetics and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations urban storm water runoff, and septic systems. Radio active contaminates, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure the 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. In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in our water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We at the Greenville Water Commission work around the clock to provide top quality water to every tap. We ask all our customers to help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

HOW CAN I GET INVOLVED?

The Greenville Water Commission Board meets the last Tuesday of every month at 8:30 a.m. at the Commission Office.

FOR MORE INFORMATION ABOUT YOUR DRINKING WATER, PLEASE CALL US AT:

The Greenville Filtration Plant (423) 798-2045

TREATED WATER QUALITY ROUNDUP

***Unless otherwise noted the data in this table is from sampling performed during the 2009 calendar year

Substance	Violations YES/NO	Highest Level Allowed (EPA'S MCL)	Highest Level Detected	Range of Directions	Ideal Goals (EPA'S MCLG'S)	Date	Source of Contaminant
<u>MICROBIALCONTAMINANTS</u>							
Total Coliform (%Positive Samples)	NO	5%	0.002%	0%	0%	2009	Naturally present in environment
<u>REGULATED AT CUSTOMRS TAP 90th percentile</u>							
Lead*	NO	AL=15ppb	4ppb	1-20ppb	0 1	2008	Corrosion of household plumbing; erosion of natural deposits
Copper*	NO	1.3ppm	.102ppm	.022-.137ppm	0 0	2008	Corrosion of household plumbing; erosion of natural deposits
<u>REGULATED IN THE DISTRIBUTION SYSTEM</u>							
Total Trihalomethanes	NO	80ppb	73ppb	9-98ppb	0	2009	By products of drinking water chlorination
Haloacetic	NO	60ppb	48ppb	10-71ppb	0	2009	By products of drinking water chlorination
<u>REGULATED AT THE TREATMENT PLANT</u>							
Total organic carbon	NO	TT	**1.25ppm	1.0-1.50ppm	NA	2009	Naturally present in environment
Turbidity	NO	TT	.89ntu	.02-.89ntu	NA 99.95%	2009	Soil runoff
Chlorine	NO	MRDL=4ppm	2.7ppm	1.7-2.7ppm	MRDLG= 4ppm	2009	Water additive used to control microbes
<u>INORGANICS</u>							
Fluoride	NO	4ppm	1.3ppm	.8-1.3ppm	MCLG=4ppm	2009	Water additives promotes strong teeth
Sodium	NO	NA	5.8ppm		NA	2009	Erosion of natural deposit; used in water treatment

Key

- MCL= Maximum Contaminant Level-the Maximum Allowed is the highest level of contaminant that is allowed in drinking water.
- MRDL= Maximum Residual Disinfectant Level-The highest level of a disinfectant allowed in drinking water.
- MRDLG= Maximum Residual Disinfectant Level Goal-The level of a drinking water disinfectant below which there is no known or expected risk to health.
- MCLG= Maximum Contaminant Level Goal-the level of a contaminant in drinking water below which there is no known or expected risk to health.
- MFL= Million Fibers Per Liter-Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- ppm= Parts per Million or Milligram per liter-one part per million corresponds to one minute in 2 years or a penny in \$10,000.
- ppb= Parts per Billion or Micrograms per liter-one part per billion corresponds to 1 minute in 2,000 years, or a penny in \$10,000,000.
- TT= Treatment Technique- a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- ntu= Nephelometric Turbidity Units-is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- NA= Not Applicable
- AL= Action Level-the concentrations of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Turbidity= 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 property.
- pCi/L= Picocuries per liter (a measure of radioactivity)

****During the most recent round of lead and copper testing, 1 out of 30 households sampled contained concentrations exceeding the action level for lead and 0 out of 30 households sampled contained concentrations exceeding the action level for copper.**

**** ALL TREATMENT TECHNIQUES WERE MET FOR TOTAL ORGANIC CARBON AND TURBIDITY**

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal & State requirements. We have learned through our monitoring and testing that some substances have been detected. The EPA has determined your water **IS Safe** at these levels. MCL'S are set at very stringent levels. To understand the possible health effects described for many regulated substances, 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 described health effect. We had one positive sample out of six hundred nineteen samples all the repeat samples were negative, there was no violations. Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring our Source Water indicated the presence of cryptosporidium in 3 out of 12 samples tested. No cryptosporidium were detected in FINISHED WATER samples. The EPA has determined that the presence of cryptosporidium at the concentration level reported in our water source is insignificant, based on the level of treatment we currently provide. 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 people are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection for information on cryptosporidium, contact the **Safe Drinking Water Hotline 1-800-426-4791**. 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. We met the treatment technique for turbidity with 99.9% of monthly samples below the turbidity limit of 0.3ntu. 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 Greeneville Water Commission is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When you 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/safewater/lead>**.