

The Gladeville Utility District's Water Quality Report for 2009

Is my drinking water safe?

Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart on the back, we only detected 8 of these contaminants. We found all of these contaminants at safe levels well below EPA'S requirements.

What is the source of my water?

Your water, which is ground water, comes from wells located at the water plant at 3826 Vesta Road. 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 water to this water system. The SWAP Report assesses the susceptibility of untreated water source 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 Gladeville Utility District's source is rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA may be viewed online at www.tn.gov/environment/dws/dwassess.shtml or you may contact the Water System to obtain copies of specific assessments.

A wellhead protection plan is available for your review by contacting Chief Operator James Hutchison at (615) 444 - 2869 between 7:00 A.M. and 3:00 P.M. on weekdays.

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's Safe Drinking Water Hotline at (800) 426-4791).

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

For more information about your drinking water, please call Chief Operator James Hutchison at (615) 444 - 2869.

How can I get involved?

Our Water Board meets on the first Thursday of each month at 11:00 a.m. at the District's office. 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. Results of unregulated contaminant analysis are available upon request. We want you to know that we strictly follow all the rules.

Other Information

The sources of drinking water (both tap water and bottled water) may 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 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. 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 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 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 at (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. Gladeville Utility District 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 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 report any suspicious activities at any utility facilities, including treatment plants, tanks, fire hydrants, etc. to (615) 444-2869 or (615) 449-0301.

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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 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.
- **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.
- **Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water.
- **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.
- **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.

NOTE: Unless otherwise noted, the data presented in this table is from sampling performed during the 2009 calendar year.

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0		2009		0	<5 positive sample	Naturally present in the environment
Turbidity ¹	No	0.10	0.07-0.10	2009	NTU	N/A	TT	Soil runoff
Sodium	No	6.8		9-08	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
Copper	No	90 th % 0.76		8-08	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.97 avg.	0.87-1.07	2009	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	NO	90 th %= 2.7		8-08	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Total Organic Carbon ***	No	1.4 avg.	1.0-2.1	2009	ppm	TT	TT	Naturally present in the environment.
Chlorine	No	2.7 avg.	2.5-2.9	2009	ppm	MRDLG 4	MRDL 4	Disinfectant to control microbes
TTHM [Total trihalomethanes]	No	39	ppb 9-58	2009	ppb	0	80	By-product of drinking water chlorination
Haloacetic acid (HAA5)	No	28	ppb 8-47	2009	ppb	0	60	By-product of drinking water chlorination

During the most recent round of Lead and Copper testing, 0 out of 30 households sampled contained concentrations exceeding the lead action level. 1 of 30 copper samples exceeded the copper action level.

¹100% of our samples were below the permitted turbidity limit.

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 is functioning properly.

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 percent removal. Monitoring of our source water indicated the presence of cryptosporidium in 2 out of 12 samples tested. 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 at (800) 426-4791.

***We met the treatment technique requirements for achieving adequate Total Organic Carbon results.

Important Information About Your Drinking Water:

Monitoring Requirements Not Met for One Sampling Event in the Gladeville Utility District's Water System

During calendar year 2009, we violated a drinking water standard during one sampling event. Even though this was not an emergency, as our customers you have a right to know what happened and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During an August 2009 sampling event we failed to conduct proper repeat monitoring following a total Coliform-positive result on a routine sample in the distribution system. The Gladeville Utility District collected 2 repeat samples instead of the required 3 repeat samples because there were only 2 active sample sites on the dead end line where the positive sample was collected. This is a monitoring violation and therefore we cannot be sure of the quality of our drinking water in that line at that specific that time.

STEPS WE ARE TAKING:

The GLADEVILLE UTILITY DISTRICT has taken the required total coliform monitoring samples during all sampling events since this incident and all samples have been negative for coliform bacteria.

For more information, please contact Chief Operator James Hutchison of the Gladeville Utility District at (615) 444-2869.

Please share this information with all the other people who drink this water, especially those who may not have received this Notice directly (for example, people in apartments, nursing homes, schools and businesses. You can do this by posting this notice in a public place or distributing copies by hand or mail.