

# The Gladeville Utility District's Water Quality Report for 2011

GLADEVILLE UTILITY DISTRICT • 3826 VESTA ROAD • LEBANON, TN 37090  
State Public Water System ID #: TN0000264 Date Distributed: June 2012

## Is my drinking water **SAFE**?

Yes, your drinking water is safe and it meets all of the Environmental Protection Agency's (EPA) health standards. In 2011 we conducted numerous tests for over 80 contaminants that might be found in drinking water. As you'll see in the chart on the back, we only detected 9 of these contaminants, and they were all at levels determined to be safe by the EPA.

## What is the **SOURCE** of my **WATER**?

Your water, which is groundwater, comes from two wells located at the water treatment plant at 3826 Vesta Road. Our goal is to protect our water source 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 source water for the Gladeville Utility District 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 the Environmental Protection Agency may be viewed online at [www.tn.gov/environment/dws/dwassess.shtml](http://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 also 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.

## Is the water system **SECURE**?

Following the events of September 11, 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 the treatment plant, tanks, fire hydrants, etc. to (615) 444-2869 or (615) 449-0301.

## Is the 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 analyses are available upon request. We want you to know that we strictly follow all the rules.

## **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. The 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>.

For more information about your drinking water, you may contact Chief Water Plant Operator James Hutchison at (615) 444 - 2869.

## 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.

## 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.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## What are the **HEALTH** impacts of our water?

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 from their health care providers about not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets. 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, which may be reached by calling (800) 426-4791.

## How may I get **INVOLVED**?

Our Board of Commissioners meets at 11:00 A.M. on the second Tuesday of each month at the District's administrative office, located at 3826 Vesta Road. Please feel free to attend and participate in these meetings.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

# W a t e r   Q u a l i t y   D a t a

About the **DATA**: Unless otherwise noted, the data presented in the following table are from sampling performed during the 2011 calendar year.

CONTAMINANT	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCLG	MCL	Likely Source of Contaminant
Turbidity <sup>1</sup>	Yes <sup>1</sup>	2.0	0.07 - 2.0	2011	NTU	N/A	TT	Soil runoff
Total Organic Carbon <sup>2</sup>	No	1.2 avg.	1.0-1.5	2011	ppm	TT	TT	Naturally present in the environment.
Total Coliform Bacteria	No	0		2011		0	< 5 positive samples	Naturally present in the environment

## INORGANIC CONTAMINANTS

Chlorine	No	2.5 avg.	2.3-2.8	2011	ppm	MRDLG 4	MRDL 4	Disinfectant to control microbes
Fluoride	No	0.95 avg.	0.79-1.07	2011	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium	No	2.3		02-11	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment

## VOLATILE CONTAMINANTS

Total Trihalomethanes (TTHM)	No	33.0 (ppb)	20-47 (ppb)	2011	ppb	0	80	By-product of drinking water chlorination
Haloacetic acid (HAA5)	No	27.0 (ppb)	13-43 (ppb)	2011	ppb	0	60	By-product of drinking water chlorination

## LEAD AND COPPER<sup>3</sup>

Lead <sup>3</sup>	No	90 <sup>th</sup> % = 0.005		06-11	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper <sup>3</sup>	No	90 <sup>th</sup> % = 0.55		06-11	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### What do the **ABBREVIATIONS** used in the above table mean?

- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **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.
- **MCL** - Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water.
- **MRDL** - Maximum Residual Disinfectant Level, or the highest level of a disinfectant allowed in drinking water.
- **MRDLG**: Maximum Residual Disinfectant Level Goal, or the level of a drinking water disinfectant below which there is no known or expected risk to health.
- **N/A** - Not Applicable
- **NTU** - Nephelometric Turbidity Unit, which is a measure of the clarity of water.
- **PPB** - Parts per Billion (e.g. one penny in ten million dollars)
- **PPM** - Parts per Million (e.g. one penny in ten thousand dollars)
- **TT** - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

<sup>1</sup> **Turbidity** is a measure of the cloudiness of the water and does not present any risk to your health. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. We met the treatment technique for turbidity with over 99% of our samples being below the permitted turbidity limit of 0.3 NTU. On June 18, 2011, we violated a drinking water standard for turbidity removal during one 10-minute interval. Even though this incident was not an emergency, we notified each of our customers by mail (on July 11, 2011) to fully inform them of what happened, what they should do, what the violation meant, and what we did to correct the situation, because inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites which can cause symptoms such as nausea, cramps, diarrhea and associated headaches. The District took the following steps to correct the situation that led to the violation: (1) we replaced the line that feeds treated water from our high service line to the combined / finished water turbidimeter; (2) we installed an alarm that will alert our water plant operators at any time that the combined / finished water turbidity begins to unexpectedly rise, thereby allowing us to shut down the water plant (if necessary) prior to reaching a turbidity level of concern; and (3) we have continued to sample and test the treated water for the presence of coliform bacteria, and none has been detected. A copy of the customer notification document related to this incident that was sent to all of our customers is available at our administrative office (3826 Vesta Road, Lebanon, TN), or a copy will be mailed to you upon request.

<sup>2</sup> The Gladeville Utility District met the Treatment Technique requirements for **Total Organic Carbon** in 2011.

<sup>3</sup> During the most recent round of **LEAD** and **COPPER** testing, 0 out of 30 households sampled contained concentrations exceeding the lead action level and 0 out of 30 of the samples contained concentrations exceeding the copper action level.

**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 in 2011 did not indicate the presence of *Cryptosporidium* in any of the samples tested. For informational purposes only, please be aware that 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 by calling (800) 426-4791.

For more information about your drinking water, you may contact Chief Water Plant Operator James Hutchison at (615) 444 - 2869.