

# WATER

## QUALITY REPORT



**HVUD**

**HARPETH VALLEY UTILITIES DISTRICT**



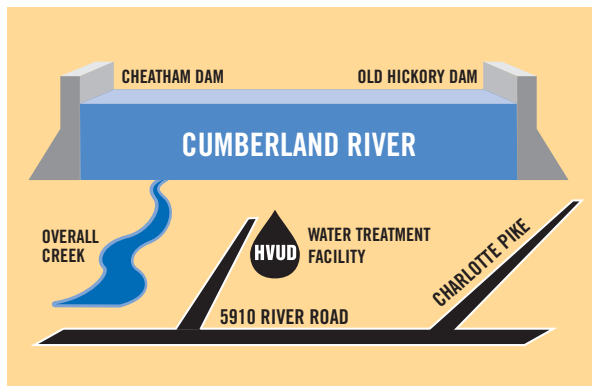
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## Is my drinking water **S A F E**?

Yes, your drinking water is safe. In the Harpeth Valley Utilities District, our water meets all of the Environmental Protection Agency's (EPA) health standards. In 2008, we conducted tests for more than 57 contaminants that might be found in drinking water. As you will see on the chart, there were only 11 contaminants found in our water, and they were at levels determined safe by the EPA. The state and the EPA also require us to test our water and report the findings on a regular basis to ensure safety and quality standards. We continually strive to maintain and improve the water you drink because our families drink it, too.

## Where does our **W A T E R** come from?



Our water source is the Cumberland River commonly known as Cheatham Lake. We work closely with the Tennessee Department of Environment and Conservation (TDEC) to assess the status of our water source for contamination. TDEC rates the potential for water source contamination based on geologic factors and human activities in the vicinity of the water source. TDEC has rated our source as reasonably susceptible.

Specific information about HVUD and its Source Water Assessment Program (SWAP) Report from TDEC can be viewed online at: [www.state.tn.us/environment/dws/dwassess.shtml](http://www.state.tn.us/environment/dws/dwassess.shtml) or you may contact the Harpeth Valley Utilities District or TDEC at 1-888-891-TDEC (1-888-891-8332) to obtain copies of specific assessments.

## Important **H E A L T H** information.



Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people can be particularly at risk for infections. This includes those undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants. These people should seek advice from a health care provider about their drinking water. More information about EPA guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* or other microbial contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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. Harpeth Valley Utilities 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 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>.



## About the **D A T A**.

The data presented in the table on the opposite page is from testing done between January 1, 2008 and December 31, 2008. HVUD monitors for some contaminants less than once per year. For those contaminants, the date of the last sample is shown on the table.

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>	NO	0.05 AVG	0.02 - 0.4	2008	NTU	N/A	TT	• SOIL RUNOFF
TOTAL ORGANIC CARBON (TOC)	NO	2.1 MAX	1.4 - 2.1*	2008	PPM	N/A	TT	• NATURALLY PRESENT IN THE ENVIRONMENT
TOTAL COLIFORM BACTERIA	NO	1.47%	—	50 samples per month	—	0	Presence of coliform bacteria in 5% of monthly samples	• NATURALLY PRESENT IN THE ENVIRONMENT
<b>INORGANIC CONTAMINANTS</b>								
CHLORINE	NO	2.2 AVG	0.37 - 5.0	2008	PPM	4.0 (MDRLG)	4.0 (MDRL)	• WATER ADDITIVE USED TO CONTROL MICROBES
FLUORIDE	NO	0.31 AVG	0.01 - 1.0	2008	PPM	4.0	4.0	• EROSION OF NATURAL DEPOSITS • WATER ADDITIVE THAT PROMOTES STRONG TEETH
NITRATE	NO	0.62	—	10/15/08	PPM	10.0	10.0	• SOIL RUNOFF FROM FERTILIZER
SODIUM	NO	9.0	—	7/15/08	PPM	N/A	N/A	• EROSION OF NATURAL DEPOSITS
<b>VOLATILE CONTAMINANTS</b>								
TTHM TOTAL TRIHALOMETHANES	NO	50 AVG	18 - 150**	4 QUARTERLY SAMPLES FOR 2008 (Plus additional sampling)	PPB	0	80	• BY-PRODUCT OF DRINKING WATER CHLORINATION
THAA TOTAL HALOACETIC ACIDS	NO	36 AVG	21 - 93	4 QUARTERLY SAMPLES FOR 2008 (Plus additional sampling)	PPB	0	60	• BY-PRODUCT OF DRINKING WATER CHLORINATION
<b>LEAD AND COPPER</b>								
LEAD <sup>2</sup>	NO	1.7***	—	8/30/2008	PPB	0	AL=15	• CORROSION OF HOUSEHOLD PLUMBING SYSTEMS • EROSION OF NATURAL DEPOSITS
COPPER <sup>2</sup>	NO	0.16***	—	8/30/2008	PPM	1.3	AL=1.3	• CORROSION OF HOUSEHOLD PLUMBING SYSTEMS • EROSION OF NATURAL DEPOSITS • LEACHING FROM WOOD PRESERVATIVES
<b>MISCELLANEOUS COMPOUNDS</b>								
ALKALINITY	NO	85	—	2008	PPM	N/A	N/A	• THE CAPACITY OF WATER TO NEUTRALIZE ACIDS
HARDNESS <sup>3</sup>	NO	117	—	2008	PPM	N/A	N/A	• EROSION OF NATURAL DEPOSITS

\* We met the Treatment Technique requirement for Total Organic Carbon in 2008.

\*\* 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.

\*\*\* 90th percentile

1. We met the treatment technique for turbidity with 98.4% of monthly samples below the turbidity limit of 0.3 NTU.
2. During the most recent round of lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level.
3. Equivalent to 6.8 grains per gallon of hardness.

#### Monitoring Violations

Drinking water regulations require that turbidity be monitored continuously from each of the individual filters at a water treatment plant. On two occasions (October 31, 2008 and February 1, 2009) there were mechanical failures of the turbidity measuring instrument (called a turbidimeter) on two of our plant's 26 filter effluent lines. Consequently, turbidity was not monitored for periods of four hours and forty-five minutes and twelve hours and twenty-five minutes, respectively. After discovering the turbidimeter failures, HVUD immediately contacted state officials with the Division of Water Supply to report the incident. The public suffered no adverse health effects on these occasions. HVUD has already instituted changes in our operating procedures to prevent this problem from reoccurring including immediate repair of turbidimeters after problems were found.

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 your drinking water meets health standards. During the dates mentioned above, we did not complete all monitoring or testing for turbidity, and therefore cannot be sure of the quality of your drinking water during that time.

#### Treatment Technique Violation

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. Normal turbidity levels at our plant are less than 0.1 turbidity units. A water sample taken Monday, February 2, 2009 showed a level of 2.0 turbidity units. This was above the standard of 0.3 turbidity units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms.

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.

This increase in turbidity was caused by equipment failure that allowed turbidity (cloudiness) of the water to increase and exceed 1.0 turbidity units. The situation was corrected and the turbidity returned to acceptable levels within 10 minutes of the incident. To prevent this from happening again, a change in operating procedures has been implemented and equipment upgrades are planned for the immediate future. Once again, after discovering the problem, HVUD immediately contacted state officials with the Division of Water Supply to report the incident.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. HVUD has had no customer reports of these symptoms.

People with severely compromised immune systems, infants, and some elderly may be at increased risk. These should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline (800-426-4791).

You do not need to boil your water or take other actions. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water. No actions or alternative water supplies are needed by consumers.

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. If you need additional information concerning this notice, please contact Joel Long or Bill Treanor at (615) 352-7076. The business address for HVUD is 5910 River Road, Nashville, TN 37209.

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

**BDL Below Detection Limit**

**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.

**MDRL Maximum Disinfectant Residual Level**, 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.

**MDRLG Maximum Disinfectant Residual Level Goal**, the level of a drinking water disinfectant below which there is no known or expected risk to health. MDRLGs do not reflect the benefits of use of disinfectants to control microbial contaminants.

**N/A Not applicable.**

**NTU Nephelometric Turbidity Units**, a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**PPB Parts Per Billion** or micrograms per liter (1 part per billion equals 1 penny in \$10,000,000).

**PPM Parts Per Million** or milligrams per liter (1 part per million equals 1 penny in \$10,000).

**TT Treatment Technique**, or a required process intended to reduce the level of a contaminant in drinking water.

**Turbidity Turbidity** does not present any risk to your health. HVUD monitors turbidity, a measure of the cloudiness of water, because it is a good indicator that the filtration system is functioning properly.

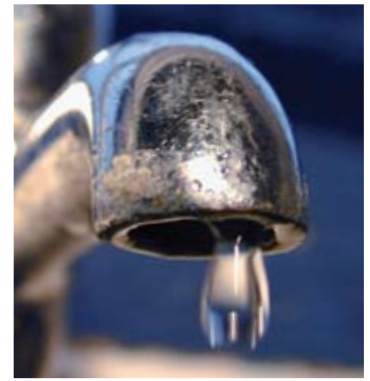
HVUD conducted sampling and analysis of the source water for Cryptosporidium in 2008. Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water in 2008 indicated the presence of cryptosporidium in 2 out of 24 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, immunocompromised 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 (800-426-4791).

# One final D R O P.

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:

- 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.



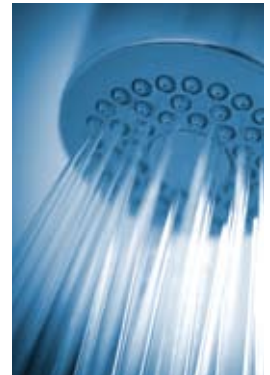
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which provide protection for public health.

For more information about contaminants and potential health effects, call the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

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## H V U D: *quality water, quality service.*

This report was issued as a requirement of an amendment to the 1996 Safe Drinking Water Act. The 1998 amendment allows the Environmental Protection Agency (EPA) to require a Consumer Confidence Report every 12 months. The goal of the EPA is to inform all customers about water quality issues in their area and to give customers any information needed to become involved in local water issues, if so desired. Although this is a new law, we have been testing our water for years and are pleased to report that, once again, our water passed the test with flying colors. If you would like more information about this report, please feel free to contact Joel Long or Bill Treanor at 615-352-7076 or visit us at 5910 River Road, Nashville, Tennessee. Our Board of Commissioners meets on the fourth Monday of each month at 9:30 a.m. in the district office.



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*All governmental powers of the District are exercised by the District's Board of Commissioners. The Board consists of three members, serving staggered four year terms. The Members of the Board are appointed by the County Mayor of Williamson County and the Probate Judge of Davidson County from a list of three nominees, in order of preference, submitted by the Board. All decisions by the Board on customer complaints may be reviewed by the Utility Management Review Board pursuant to Tennessee Code Annotated, Section 7-82-702(7).*



P.O. Box 210319 • 5910 River Road • Nashville, TN 37221

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