



White House Utility District

WATER & WASTEWATER

3303 Highway 31W
P.O. Box 608
White House, TN 37188

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Photo by Robert Wells

Water Quality Report 2010

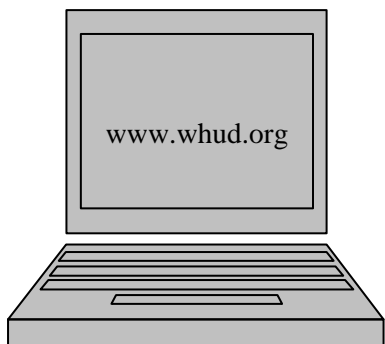
Why are there contaminants in my water?

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 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 that 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.



For more information
about our services,
visit our Web site.

Other Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons; such as persons 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 about 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).

Our drinking water meets EPA standards for trihalomethanes. The EPA establishes Maximum Contaminant Levels (MCLs) using the assumption that if most people drink 2 liters of water containing disinfection byproducts in excess of the MCL every day for 70 years, then 1 person in 10,000 may have an increased risk of cancer. 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. More information about contaminants such as trihalomethanes and their potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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. White House 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 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>. If you choose to have your tap water tested, be sure to use a properly certified laboratory. Testing usually costs between \$20 and \$100.



As seen in the photo, White House Utility District recently invested in a technological upgrade to our water treatment facilities located in Hendersonville. Granular Activated Carbon contactors have been added to aid in the removal of taste and odor-causing compounds from drinking water before it reaches our customers. This, as well as other process upgrades, represents our commitment to providing quality drinking water to our customers.

White House Utility District also remains committed to providing ample water service to our customers with respect to pressure and flow. WHUD will place a new, elevated, 750,000-gallon water tank in service in Robertson County on Cedar Grove Road later this summer. Improved fire protection flows, more consistent water pressure, and the opportunity for future growth are benefits the new tank will provide to our customers in this area.

Is my drinking water safe?

Yes. The water produced by White House Utility District meets or exceeds **ALL** of the nation's water quality standards required by the Environmental Protection Agency as well as the State of Tennessee. We take great strides to ensure your water is safe every time you turn on your faucet. Daily water quality tests are conducted by WHUD to ensure the water produced and delivered to your home is safe to drink. Tests are routinely performed for over 80 possible contaminants using the newest technologies available.

As evidenced further in this report, during 2010 ten contaminants were detected in the water supply. Of the ten contaminants detected, all either naturally occurred at levels considered safe by the Environmental Protection Agency and the State of Tennessee or were reduced to safe levels by WHUD's water treatment process.

What is the source of my water?

Your water, which is surface water, comes from Old Hickory Lake. Our goal is to protect your water from contaminants, and we work with the State of Tennessee on an on-going basis to examine 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 this water system. The SWAP Report assesses the susceptibility of untreated water sources to potential contamination. The White House Utility District system source is rated as reasonably susceptible to potential contamination. To ensure safe drinking water, all public water systems treat and routinely test their water.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings, and the overall TDEC report to the EPA can be viewed online at www.state.tn.us/environment/dws/dwassess.shtml.

White House Utility District

Water Quality Report

2010

Important Definitions

- **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. 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.
- **MRDL** - Maximum Residual Disinfectant 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.
- **MRDLG** - Maximum Residual Disinfectant Level Goal, the level of 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.
- **NTU - Nephelometric Turbidity Unit** - nephelometric turbidity unit is 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 - 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.
- **ppm** - Parts per million 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.
- **TT** - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine	NO	2.18 Avg.	.30 – 2.6	2010	ppm	MRDLG = 4	MRDL = 4	Added as a disinfectant to control microbes
Copper ¹	NO	0.19 90th percentile		2008	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	1.6		2010	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5	NO	55 Avg.	32 – 86	2010	ppb		60	By-product of disinfection
Lead ¹	NO	2.2 90th percentile		2008	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Sodium	NO	2.6	2.6	2010	ppm			Erosion of natural deposits
TOC ²	NO	1.55 Avg.	1.4 – 1.6	2010	ppm		TT	Naturally present in the environment
Total Coliform Bacteria	NO	0.25%		2010		0	<5% positive samples	Naturally present in the environment
TTHM ⁴ (total trihalomethanes)	NO	77 Avg.	45 – 91	2010	ppb		80	By-product of drinking water chlorination
Turbidity ³	NO	0.15	.03 – .15	2010	NTU		TT	Soil runoff

¹ During the most recent round of lead testing, 0 out of 30 households sampled contained concentrations exceeding the action level of 15 ppb.

No copper samples exceeded the action level of 1.3 ppm.

² Treatment technique requirements were met for Total Organic Carbon in 2010.

³ We met the treatment technique for turbidity with 100% of monthly samples being below the limit set by the EPA of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

⁴ Our drinking water meets EPA standards for trihalomethanes. The EPA establishes MCLs using the assumption that if most people drink 2 liters of water containing disinfection byproducts in excess of the MCL every day for 70 years, then 1 person in 10,000 may have an increased risk of cancer. 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.

Our Water Board meets quarterly on the last Tuesday of the months of March, June, September, and December at 9:00 a.m. at the WHUD office located at 3303 Highway 31-W in White House. These meetings are open to the public.

We are proud to announce that in 2010 WHUD received an "Approved" rating of 96% on the Sanitary Survey conducted by the Tennessee Department of Environment and Conservation. These surveys are conducted periodically as a surprise on-site inspection and file review to evaluate the operational performance of a public water system and its ability to deliver safe drinking water.

During the summer months when usage is at a high, some of our customers could have received water that was treated and tested by Gallatin Public Utilities. For this reason, the information on this page has been supplied by Gallatin Public Utilities. The water, which is surface water, comes from Old Hickory Lake. During the past year, numerous tests have been conducted by Gallatin Public Utilities for contaminants that may be present in drinking water. Only 13 were detected, and all were below allowed levels. WHUD also performs additional monitoring on this water before it reaches our customers.

Gallatin Public Utilities Water Quality Report 2010

Contaminant	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detections	Units	Date	Sources of Contamination
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MICROBIOLOGICAL CONTAMINANTS:

Total Coliform	<5% Positive Samples	0	0.49%	1 1 1 1	MPN MPN MPN MPN	May-10 Jun-10 Jun-10 Sep-10	Naturally present in the environment
Cryptosporidium			2	0 - 2	oocyst/L	Dec-08	

INORGANIC CONTAMINANTS:

Barium	2	2	0.026		ppm	Aug-10	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper	1300	AL=1300	190	BDL-930	ppb	Jul-08	Corrosion of household plumbing
Fluoride	4	4	1.2	1.1- 1.3	ppm		Water additive for strong teeth
Lead	15	AL=15	2	BDL - 7.0	ppb	Jul-08	Corrosion of household plumbing
Nitrate	10	10	0.46		ppm	Feb-10	Runoff from fertilizer use
Turbidity	TT (100% <0.3 NTU)	TT	0.11	0.02 - 0.11	NTU		Soil runoff
Chlorine	MRDL=4	MDRLG=4	2.1 (Avg.)	1.71 - 1.96	ppm		Water additive used for disinfection

UNREGULATED CONTAMINANTS:

Sodium			5.7		ppm	Feb-10	Erosion of natural deposits
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VOLATILE ORGANIC CONTAMINANTS:

TTHM	80	0	54 (Avg.)	21.7 - 113	ppb		By-product of drinking water chlorination
HAA5	60	0	46 (Avg.)	19.2 - 91.5	ppb		By-product of drinking water chlorination
TOC	TT	TT	2.1 (Avg.)	1.91 - 2.30	ppm		Naturally occurring in environment

AL—Action Levels are reported at the 90th percentile for homes at greatest risk. Out of 30 samples collected, we had zero (0) exceed the lead or copper Action Level.

MPN—Most Probable Number

TT—The Treatment Technique requirements for Total Organic Carbon were met in 20010.

Most of the data presented in this table is from testing done between January 1, 2010 and December 31, 2010. We monitor for some contaminants less than once per year, for these contaminants, the last sample date is shown in the table.

During the summer months when usage is at a high and also during the flood of May 2010, some of our customers could have received water that was treated and tested by Hendersonville Utility District. For this reason, the information on this page has been supplied by Hendersonville Utility District. The water, which is surface water, comes from Old Hickory Lake. During the past year, numerous tests have been conducted by Hendersonville Utility District for contaminants that may be present in drinking water. WHUD also performs additional monitoring on this water before it reaches our customers.

Hendersonville Utility District Water Quality Report 2010

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCLG / MRDLG	MCL	Likely Source of Contamination
Turbidity ²	NO	.29	.02-.29	(Daily) 2010	NTU	N/A	TT	Soil Runoff
Total Organic Carbon**	NO	44% Removal Achieved	25% Removal Achieved	1/Month	ppm	N/A	TT	Naturally present in the environment
Total Coliform Bacteria	NO	99.9%	Presence / Absence	50/Month		0	5% of monthly samples	Naturally present in the environment
Cryptosporidium	NO	0	Presence / Absence	Jan-Mar 2010	oocysts/L	N/A	TT	A microbial pathogen found in surface water throughout the U.S.
INORGANIC CONTAMINANTS								
Chlorine	NO	3.5	1.3 – 3.5	(Daily) 2010	ppm	4.0	4.0 ppm	Additive used to control microbes
Barium	NO	.025	.005	7/6/10	ppm	2.0	2.0	Discharge of drilling wastes, metal refineries Erosion of natural deposits
Fluoride	NO	1.20	.93 – 1.20	1/Quarter	ppm	4.0	4.0 ppm	Erosion of natural deposits Additive used to promote strong teeth
Nitrate	NO	0.28	0.10	1/5/10	ppm	10.0	10.0 ppm	Soil runoff from fertilizer
Sodium	NO	8.8	.50	7/12/10	ppm	N/A	N/A	Erosion of natural deposits
VOLATILE CONTAMINANTS								
TTMH—Total Trihalo-methanes	NO	ARA=.032	.009 – .041	4/Quarter	ppm	0	.08 ppm	Byproduct of drinking water chlorination
TTHA5—Total Haloacetic Acids	NO	ARA-.024	.015 – .065	4/Quarter	ppm	0	.06 ppm	Byproduct of drinking water chlorination
LEAD AND COPPER								
Lead ¹	NO	.0049*	BDL –.49	7/22/08	ppm	0	AL=15	Corrosion of household plumbing Erosion of natural deposits
Copper ¹	NO	0.14*	.0088 –.14	7/22/08	ppm	1.3	AL=1.3	Corrosion of household plumbing Erosion of natural deposits Leaching from wood preservatives

¹ During the most recent round of lead and copper testing, zero out of 30 households samples contained concentrations exceeding the action level.

* 90th percentile

** We met all required removal levels for Total Organic Carbon in 2010.

² We met the treatment technique for turbidity with 95% monthly samples below the turbidity limit of 0.3 NTU.

ARA =Annual Running Average

LRAA—Locational Running Annual Average

N/A = Not Applicable

Cryptosporidium: We began testing our source water and finished (drinking) water for the presence of cryptosporidium in April 2008. Samples are collected once per month and submitted to an independent laboratory for testing. Cryptosporidium is a microbial parasite that 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 of our source water indicated the presence of cryptosporidium in 1 out of 24 samples tested to date. No cryptosporidium were detected in finished water samples. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks; however, immune-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 (800-426-4791).