

White House Utility District

2014 Water Quality Report



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 http://www.tn.gov/environment/water/water-supply_source-assessment.shtml.

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 2014 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.

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 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.

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.

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).

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.

Customer Contact Information

When WHUD knows in advance that a water outage may occur in your area, we inform our customers as a courtesy service by sending you a recorded phone message. Please help us to ensure we always have the most up-to-date phone number for your account so that you can be notified.

There are two ways to update your account information:

- Log into your account on our Web site at <https://billing.whud.org/Security/Authorize.aspx>
- Call our automated phone system at 615-672-4110. Press Option 2 for Account Information. Then, press Option 4 for Update Your Account Information.

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.

For more information about WHUD's testing results, please call Bill Treanor at (615) 824-4656.

Irrigating your lawn and garden can be a great way to manage your outdoor water use and keep your property in good health throughout the summer. Irrigation can also use a lot of water, however, so it's important to take some simple steps to make sure you're minimizing your water use:



White House Utility District

Water Quality Report

2014

Important Definitions Used in this Report:

- 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 Detectable Limits
- HAA5 - Halo Acetic Acids
- 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.
- N/A - Non-Applicable
- 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.
- TOC - Total Organic Carbon
- TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.
- TTHM - Total Trihalomethanes

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine	NO	2.4 Avg.	1.6 – 2.8	2014	ppm	MRDLG = 4	MRDL = 4	Added as a disinfectant to control microbes
Copper ¹	NO	0.075 90th percentile		2014	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	0.78	0.72 - 0.83	2014	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5	NO	40 Avg.	18 – 49	2014	ppb		60	By-product of disinfection
Lead ¹	NO	0.5 90th percentile		2014	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Sodium	NO	7.1	7.1	2014	ppm			Erosion of natural deposits
TOC ²	NO	1.3 Avg.	1.2 – 1.6	2014	ppm		TT	Naturally present in the environment
Total Coliform Bacteria	NO	0.80%		2014		0	<5% positive samples	Naturally present in the environment
TTHM ⁴ (Total trihalomethanes)	NO	56 Avg.	22 – 88	2014	ppb		80	By-product of drinking water chlorination
Turbidity ³	NO	0.17	.04 – .17	2014	NTU		TT	Soil runoff

1 During the most recent round of lead testing, 0 out of 33 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 2012.

3 We met the treatment technique for turbidity with 99% 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 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.

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 16 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 2014

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	0.30%	1	MPN	16-Jul-14	Naturally present in the environment
Cryptosporidium			2	0 - 2	oocyst/L	Dec-08	

INORGANIC CONTAMINANTS:

Barium	2	2	0.03		ppm	May-11	
Copper	1300	AL=1300	180	BDL-510	ppb	Jun-14	Corrosion of household plumbing
Fluoride	4	4	.66 (AVE)	0.58- 0.71	ppm	Weekly	Water additive for strong teeth
Lead	15	AL=15	1	BDL - 100	ppb	Jun-14	Corrosion of household plumbing
Nitrate	10	10	0.45		ppm	Feb-14	Runoff from fertilizer use
Turbidity	TT (100% <0.3 NTU)	TT	0.26	0.02 - 0.26	NTU	Daily	Soil runoff
Chlorine	MRDL=4	MDRLG=4	1.52 (AVE.)	0.4 - 2.3	ppm	Daily	Water additive used for disinfection

UNREGULATED CONTAMINANTS:

Sodium			3.5		ppm	May-14	Erosion of natural deposits
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VOLATILE ORGANIC CONTAMINANTS:

TTHM	80	0	23.6 (AVG)	13.03 - 45.8	ppb		By-product of drinking water chlorination
HAA5	60	0	18.6 (AVG)	8.9 - 37.4	ppb		By-product of drinking water chlorination
TOC	TT	TT	1.5 (AVE)	1.2 - 1.9	ppm		Naturally occurring in environment

RADIOACTIVE CONTAMINANTS:

Gross Alpha	15	0	1.3		pCi/L	05-Nov-14	Erosion of Natural Deposits
Radium 226	3	0	0.76		pCi/L	05-Nov-14	Erosion of Natural Deposits
Radium 228	2.5	0	0.46		pCi/L	05-Nov-14	Decay of Natural & Man-made Deposits

Listed above are 16 contaminants detected in Gallatin's drinking water in 2014. All are below allowed levels.

Most of the data presented in this table is from testing done between 1/1/14 and 12/31/14. We monitor for some contaminants less than once per year. Not listed are the hundreds of other contaminants for which we tested but were not detected.

Action Level: The concentration of a contaminant that triggers treatment or other requirements that a water system must follow. 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.

pCi/L: Picocuries per Liter is the measurement of radioactivity in 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 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 2014

About the DATA: The data presented in the table are "State Approved" and/or "State Certified" laboratory test results conducted between January 1, 2014 and December 31, 2014.

Table Definitions

<p>AL Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or requirements which a water system must follow.</p> <p>LRAA Local Running Annual Average</p> <p>BDL Below Detectable Limits</p> <p>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. MCLG's are for a margin of safety.</p> <p>MCL Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment Technology.</p> <p>MRDL Maximum Disinfectant Residual Level, the highest level a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial</p>	<p>MRDLG Maximum Disinfectant Residual Level Goal, the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p> <p>N/A Non Applicable</p> <p>NTU Nephelometric Turbidity Units, a measure of the clarity of water. Turbidity in excess of 5.0 NTU is just noticeable to the average person.</p> <p>PPM Parts Per Million, or milligrams per liter (1 part per million equals 1 penny in \$10,000.00.</p> <p>TT Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.</p> <p>ug/l ug/l is the symbol that is used for micrograms per liter, which means one millionth of a gram per liter.</p>
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CONTAMINANT	VIOLATION	LEVEL DETECTED	RANGE OF DETECTION	DATE OF SAMPLING	UNIT OF MEASUREMENT	MCLG / MRDLG	MCL	LIKELY SOURCE OF CONTAMINATION
Turbidity ²	No	.44	.00 - .44	Daily (Jan. - Dec. 2014)	NTU	N/A	TT	Soil Run-Off
** Total Organic Carbon	No	64% Achieved	25% Removal Required	1/Month	PPM	N/A	TT	Naturally Present In The Environment
Total Coliform Bacteria	No	97.7% Absence	Presence / Absence	50/Month	-	0	Presence of Coliform Bacteria in 5% of Monthly Samples	Naturally Present In The Environment
Chlorine	No	1.49	.20 – 2.90	Daily	PPM	4.0	4.0	Additive Used To Control Microbes
Fluoride	No	.80	.70 - .90	1/Quarter	PPM	4.0	4.0	Erosion of Natural Deposits Additive Used To Prevent Tooth Decay
Sodium	No	8.3	1.0	7/11/2014	Mg/l	N/A	N/A	Erosion of Natural Deposits
Nitrate	No	.34	.10	1/29/2014	Mg/l	10.0	10.0	Soil Run-Off From Fertilizer Leaching From Septic Tanks Erosion of Natural Deposits
Trihalo-methanes	No	LRAA = .036	.025 - .045	4/Quarter	PPM	0	.06	By-Product of Drinking Water Chlorination
Total Haloacetic Acids	No	LRAA = 0.29	.022 - .046	4/Quarter	PPM	0	.04	By-Product of Drinking Water Chlorination
*Lead ¹	No	BDL	Based on 90 th Percentile	11/18/2014	Mg/l	0	AL = 15	Corrosion of Household Plumbing Erosion of Natural Deposits
*Copper ¹	No	0.44	Based on 90 th Percentile	11/18/2014	Mg/l	0	AL = 1.3	Corrosion of Household Plumbing Erosion of Natural Deposits Leaching From Wood Preservatives
RADIOLOGICAL								
Gross Alpha – 2 Sigma	No	.50	15.0	5/7/2014	pCi/l	-	-	Erosion of Natural Deposits
Radium 226	No	1.1	.40	5/6/2014	pCi/l	-	-	Erosion of Natural Deposits
Radium 226 – 2 Sigma	No	.40	.40	5/6/2014	pCi/l	-	-	Erosion of Natural Deposits
Radium 228 – 2 Sigma	No	.32	.57	5/7/2014	pCi/l	-	-	Erosion of Natural Deposits

UNREGULATED CONTAMINANT MONITORING ASSESSMENT 2014 (UCMR3) Entry Point to Distribution System								
CONTAMINANT	VIOLATION	LEVEL DETECTED	RANGE OF DETECTION	DATE OF SAMPLING	UNIT OF MEASUREMENT	MCLG / MRDLG	MCL	LIKELY SOURCE OF CONTAMINATION
Chromium	No	<0.2		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Cobalt	No	<1.0		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Molybdenum	No	<1.0		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Strontium	No	110		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Vanadium	No	<0.2		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Chromium, Hexavalent	No	<0.03		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Chlorate	No	200		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
1,4-Dioxane	No	<0.07		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Bromochloromethane	No	<0.06		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Bromomethane	No	<0.2		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
1,3-Butadiene	No	<0.1		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Chlorodifluoromethane	No	<0.08		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Chloromethane	No	<0.2		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
1,1-Dichloroethane	No	<0.03		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
1,2,3-Trichloropropane	No	<0.03		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluoroheptanoic Acid	No	<0.09		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluoroheptanoic Acid	No	<0.01		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluorohexanesulfonic Acid	No	<0.03		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluorohexanesulfonic Acid	No	<0.03		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluorononanoic Acid	No	<0.02		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluorooctane Sulfonate	No	<0.04		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set
Perfluorooctanoic Acid	No	<0.02		12/19/2014	ug/l	N/A	N/A	No Health-Based Standard Set

1. During the most recent round of lead and copper testing, no samples contained concentrations exceeding the action level (AL).

* 90th percentile was met for both lead and copper. Lead's 90th percentile was below detectable limits (BDL). Copper's 90th percentile was below the action level (AL).

** Hendersonville Utility District met all required removal levels for Total Organic Carbon (TOC) in 2014.

2. Hendersonville Utility District met the treatment technique for turbidity with 99.99% of monthly samples below the limit of 0.30 NTU. Turbidity is the measure of cloudiness of the water, The District monitors turbidity because it is a good indicator of the effectiveness of our filtration process.

Variance and Exemptions: Hendersonville Utility District has been waived during the 2014 annual monitoring period of:

Primary & Secondary Inorganic Compounds (IOC's);

Synthetic Organic Compounds (SOC's);

Asbestos ;

Radionuclide's

NOTE: Although waived for monitoring, Hendersonville Utility District elected to monitor for radionuclide's during the monitoring period of 2014.