2021

Water Quality Report

White House Utility District

WHAT IS THE PURPOSE OF THIS REPORT?

The U.S. Environmental Protection Agency (EPA) requires community water systems to deliver a Consumer Confidence Report (CCR), also known as a Water Quality Report, to their customers each year. This report is intended to provide customers with information about their local drinking water quality and includes information such as the source of drinking water, any risk of contamination, contamination regulations, and more. Learn more at EPA.gov/ccr.

For more information about WHUD's water testing results, call Bill Treanor at (615) 672-4110, ext. 324.

WHAT IS THE SOURCE OF MY WATER?

Geographically, WHUD is TN's largest water and wastewater provider, covering more than 600 square miles. WHUD provides water service to more than 100,000 residents in Robertson, Sumner and northern Davidson counties. The district draws water from Old Hickory Lake, which is surface water, at a point off Rockland Road in Hendersonville, where WHUD's water treatment facility is located.

WHUD's goal is to provide the highest quality water to our customers. One way we do this is by working with the State of Tennessee 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. Old Hickory Lake, WHUD 's water 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 the EPA can be viewed online at https://www.tn.gov/environment/program-areas/wr-water-resources/waterquality/source-water-assessment.html.

To ensure safe drinking water, all public water systems treat and routinely test their water. WHUD has a rigorous process that includes 24/7 system monitoring and sampling, strict adherence to state and federal rules and regulations, and a multitude of checks and balances that ensure the integrity of our system and high quality water.

IS MY DRINKING WATER SAFE?

Yes. The water produced by WHUD continuously meets or exceeds ALL of the national water quality standards required by the EPA as well as the State of Tennessee (TDEC). We have stringent processes in place 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 performed both at the water treatment plant before the water leaves the plant and at various points and times once the water is in our distribution system. Tests look for and detect more than 80 possible contaminants using the newest technologies available. As evidenced in this report, during 2021, 10 contaminants were detected in the water supply. Of the 10 contaminants detected, all either naturally occurred at levels considered safe by the EPA and TDEC or were reduced to safe levels by WHUD's water treatment process.

A cassette from our Membrane Treatment Plant. Each cassette has thousands of hollow fibers that filter dirt, debris, and micro-organisms out of the water.

Old Hickory Lake,a man-made reservoir located on the Cumberland River approximately 25 miles northeast of Nashville, is one of the state's most popular recreational waterways. It borders five counties and serves as a water source for multiple area utilities, including WHUD.

A panoramic view of our Conventional Water Treatment Plant sedimentation basins.

WHY ARE THERE CONTAMINANTS IN MY WATER?

Drinking water, including bottled water, may contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. 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. It can also 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 TDEC 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. 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.

OTHER INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population, including immuno-compromised individuals (such as those undergoing chemotherapy, those who have undergone organ transplants, or those with HIV/AIDS or other immune system disorders). Some elderly and infants can also be particularly at risk of infections. These individuals 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 (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. WHUD is responsible for providing high-quality drinking water but cannot control the variety of materials used in private plumbing components. 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.

HOW IS THE WATER TREATED?

Conventional Treatment Plant

WHUD operates a ***traditional water treatment plant*** that treats and distributes roughly 10 millions of gallons of water per day.

Intake Valves
Water is drawn from Old Hickory Lake. It passes through fine particle screens to prevent large debris from traveling to treatment plant.

Coagulation/ Floculation
Coagulants are added to the water that "stick" to dirt, creating larger, heavier particles called "floc".

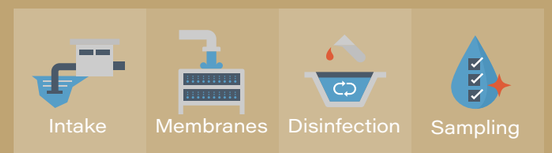
Sedimentation
The floc settles at the bottom of the basin, while the water rises to the top.

Filtration
As the floc settles, the "clear water" on top flows through a series of filters to remove any remaining particles.

Disinfection
The filtered water is disinfected to kill microorganisms found in the fresh water.

Membrane Treatment Plant

WHUD also operates a ***membrane treatment plant*** that treats and distributes roughly 4 million gallons of water per day. In this process, water passes through an advanced filtration system consisting of millions of microscopic pores that prevent microorganisms from entering the water supply.



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WHITE HOUSE UTILITY DISTRICT

Consumer Confidence Report

WHUD

2021 Water Quality Data

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine	No	1.8	1.0 - 3.7	2021	ppm	MRDLG = 4	MRDL = 4	Added as a disinfectant to control microbes
Copper[1]	No	0.0611 90th percentile		2020	ppm	1.3	AL - 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.60	0.43 – 0.79	2021	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5 (Haloacetic acids)	No	45	23 - 59	2021	ppb		60	By-product of disinfection
Lead[1]	No	0.001 90th percentile		2020	ppb	0	AL - 15	Corrosion of household plumbing systems; erosion of natural deposits
Sodium	No	7.1		2021	ppm			Erosion of natural deposits
TOC[2]	No	48% Removal Achieved	25% - 35% Removal Required	2021	ppm		TT	Naturally present in the environment
Total Coliform Bacteria	No	0.000%		2021		0	TT	Naturally present in the environment
TTHM (Total trihalomethanes)[3]	No	62	27-81	2021	ppb		80	By-product of drinking water chlorination
Turbidity[4]	No	0.08	0.02 - 0.08	2021	NTU		TT	Soil runoff

FOOTNOTES

1 During the most recent round of lead testing, 0 out of 50 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 2021.

3 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.

4 WHUD 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.

*See back for help interpreting the Water Quality Data.

Interpreting the 2021 Water Quality Data

The 2021 Water Quality Data chart contains information about contaminants detected in your drinking water. Maximum allowable levels and goals for levels set by the EPA are listed along with the units of concentration. Also, the concentration of each contaminant detected in your drinking water is listed. Data contained in the chart is from sampling performed in the 2021 calendar year. Below are some important terms used in the data.

Important Definitions

MCLG - Maximum Contaminant Level Goal is 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 is 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.

MRDLG – Maximum Residual Disinfectant Level Goal is 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.

MRDL - Maximum Residual Disinfectant Level is 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.

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

ppm - Parts per million or milligrams per liter (mg/l) can be 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.

ppb - Parts per billion or micrograms per liter can be 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.

NTU - Nephelometric turbidity units measure the turbidity, or clarity, of water. Turbidity in excess of 5 NTUs is just noticeable to the average person.

TT - Treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

STAY CONNECTED.

RECEIVE NOTIFICATIONS
Receive important district notifications by making sure we have your up-to-date contact information. Here are two ways to update your account contact information:

whud.org/my-account | **615-672-4110** (follow the prompts)

TOOLS & RESOURCES
For helpful household water and wastewater tips, leak detection tools, access to your account, our real-time outage map, and a number of online support tools, visit WHUD.org. For access on the go, visit WHUD.org from any mobile device, and follow the prompts to install our free mobile app.

ASK US
Our Customer Care Team is always ready to assist you. If you have questions, you can call us M-F, between 8am - 4pm, at 615-672-4110. You can also email customerservice@whud.org, or submit an online inquiry through our Customer Service Hub at WHUD.org.

FIND US ON SOCIAL
Follow us at facebook.com/whudh20 or twitter.com/whud_h20 for regular water savings tips, important updates and news, and behind the scenes' views at water and wastewater operations.

BOARD MEETINGS
Our Board of Commissioners 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 31W in White House. These meetings are open to the public.