Metro Utility Department
2021 #1 Water Quality Report

Is my drinking water safe?
Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over a dozen contaminants that may be in drinking water. As you'll see in the chart on the side, we only detected a few of these contaminants. We found all of these contaminants at safe levels.

What is the source of my water?
Your water, which is surface water, comes from the Tims Ford Lake. Our goal is to protect our water 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 this water system. The SWAP Report assesses the susceptibility of untreated water sources 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 Metro Utility Department sources rated as slightly 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 EPA can be viewed online at www.state.tn.us/environment/dws/dwassess.shtml or you may contact the Water System to obtain copies of specific assessments.

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 (800-426-4791).

Este informe contiene informacion muy importante. Traduscalo o hable con alguien quo lo entienda bien.

For more information about your drinking water, please call our office at (931) 759-4297

How can I get involved?
Our Water Board meets every second Tuesday night of the month at 6:00 PM at the utility office, 705 Fayetteville Hwy.
Please feel free to participate in these meetings.

Is our 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 analysis are available upon request. We want you to know that we pay attention to all the rules.

Other Information
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 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 tanks.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. Department of Environment and Conservation prescribe regulations which limit the number of certain contaminants in water provided by public water systems. Metro Utility Department's water treatment processes are designed to reduce any such substances to levels well below any health concern. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Do I need to take special precautions?
Some people may be more vulnerable to contaminants in drinking water than the general population. Immune- 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 about not only their drinking water, but also food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. 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 (800-426-4791).

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.
Metro Utility Department 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 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.

Water System Security
Following the events of September 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 treatment plants, pumping
Stations, tanks, fire hydrants, etc. to (931) 759-4297.

Metro Utility Department
2020 Water Quality Data #1

What does this chart mean?

- 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 allow for a margin of safety.
- MCL: Maximum Contaminant Level, or the highest level 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.
- MRDLG: Maximum Disinfectant Residual Level Goal
- MRDL: Maximum Disinfectant Residual Level

Contaminant	EPA Limit (MCLG)	EPA Limit (MCL)	Level Found In M.U.D. Samples	Range of Detection	Violation Yes/No	Date Of Samples	Typical Source Of Contaminants
Total Coliform Bacteria	0	<5% Positive	0.0%	N/A	No	2020	Naturally present In the environment
Turbidity (NTU)	N/A	0.3	0.08	NTU 0.01-.27	No	2020	Soil run off
Copper* (ppm)	1.3	AL 1.3	90th%=0.03 Ppm	N/A	No	2018	Corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives
Lead* (ppb)	0	AL=15 ppb	90th%=<1.0 Ppb	N/A	No	2018	Same as above & corrosion of natural deposits
NITRATE (PPM)	10ppm	>5mg/l	0.65ppm	N/A	NO	2020	Run off from natural deposits and from fertilizers
Synthetic Organic Compounds (SOC's)	10ppb	N/A	BDL	N/A	NO	2020	Herbicides,pesticides, and manmade chemicals
Sodium (ppm)	N/A	N/A	4.48	N/A	No	2019	Discharge from petroleum & metal refineries, erosions of natural deposits, and discharge from mines
Fluoride (ppm)	4ppm	4ppm	0.64 AVG	0.32-.97	No	2020	Water additive for strong teeth, corrosion of natural deposits
Chlorine (ppm)	MRDLG 4ppm	MRDL 4ppm	2.35 AVG	0.40-2.5	No	2020	Water additive used to control microbes
Trihalomethanes (ppb)	N/A	80	41	N/A	No	2020	Disinfection by-product
Halo acetic Acids (ppb)	N/A	60	36	N/A	No	2020	Disinfection by-product
Total Organic Carbon**	N/A	TT	1.06	0.97-1.36	No	2020	Naturally present in the environment

*During the most recent round of lead and copper testing, 0 out of 20 sites sampled contained concentrations exceeding the action level. ** We met the treatment technique for total organic carbon. Compliance value achieved if value is ≥ 1.0. Turbidity does not present risk to your health. We monitor turbidity, which is a measure of the cloudiness in drinking water, because it is a good indicator that our filtration system is functioning properly. Abbreviations: PPB: parts per billion or micrograms per liter. PPM: parts per million or milligrams per liter. N/A: not applicable. NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water. MFL: million fibers per liter, used to measure asbestos concentration. AL: Action level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which

a water system must follow. TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water. About the data: Most of the data in this table is from testing done between Jan. 1 and Dec. 31, 2020. We monitor for some contaminants less than once per year, and for these contaminants, the date of the last sample is shown in the table. * BDL means Below Detection Limit.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER: Monitoring Requirement Not Met for (Metro Moore Utility)

(Metro Moore Utility) violated a drinking water standard. Even though this was not an emergency, you as a customer have a right to know what happened and what we are doing to correct this situation. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During [compliance period], we did not monitor for [contaminant(s)] and therefore cannot be sure of the quality of our drinking water during that time.

The table below lists the contaminant(s) we did not thoroughly test for, required number of samples, actual number taken, date of the violation.

Contaminant	**required number sampled**	**Actual number Of samples taken**	**Date of violation**
Total coliform	7 samples monthly	6 samples taken	August 2020
Total coliform	7 samples monthly	6 samples taken samples	September 2020

What happened? What is being done?

Operator taking monthly samples misunderstood that the 7 samples collected was just for PWSID 000416

Not both service area's which was a total of 8 samples. the operator collected 6 samples for (000416) and 1 sample for

(008258) Ledford Mill. After the error was found, new collecting policy was made, and the issue was corrected. 7 samples are now collected for (000416) and 1 sample for Ledford Mill (008258).

For more information please contact (Mike Mitchell Chief Operator) Metro Moore Utilities (931-993-9483)

This Notice is brought to by Metro Moore Utility Department State Water System ID # TN000416

Date:

METRO UTILITY DEPARTMENT #2

(Cobb Hollow, Ledford Mill, Ridgeville, and Tankersley Ridge Area Residents Only)

2021 WATER QUALITY REPORT

UTILITY INFORMATION

The Metro Utility Department #2 distributes drinking water supplied by the Duck River Utility Commission through the Tullahoma Utilities Authority. The DRUC is a regional water authority that provides ultra-pure and plentiful water to over 66,000 people in Manchester, Tullahoma and portions of the surrounding counties. The DRUC is a government agency formed in 1976 and operates a state-of-the-art water filtration plant and other water supply facilities. The DRUC system is operated twenty-four hours a day by State certified personnel producing up to twelve million gallons of pure water each day. Certified employees of the MUD#2 operate and maintain the distribution system.

WATER SOURCE

The DRUC water treatment plant withdraws surface water from Normandy Reservoir, constructed by TVA in 1976, which is filled by flow from the Duck River. The DRUC, TVA and the Tennessee Department of Environment and Conservation (TDEC) are actively working to protect the reservoir from sources of pollution and assess vulnerability to potential contamination. The DRUC has prepared a Source Water Assessment Program (SWAP) report that assesses the susceptibility of Normandy Reservoir to ***potential*** contamination and it has been rated as reasonably susceptible (moderate) based on geological factors and human activities in the vicinity of the reservoir. An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scoring and the overall TDEC report to the USEPA can be viewed online at www.state.tn.us/environment/dws/dwassess.shtml or you may contact the DRUC or TDEC at 1-888-891-TDEC to obtain copies of specific assessments. In addition, the DRUC has implemented a number of security measures, including 24-hour surveillance and alarms at our facilities to protect against vandalism and other forms of attack.

THE TREATMENT PROCESS

The DRUC water treatment plant utilizes advanced water treatment technology to remove both particulate matter and dissolved compounds from the water before it is disinfected and pumped to the MUD#2 distribution system. The reservoir water entering the facility is first oxidized and disinfected by the injection of chlorine dioxide. Traditional pretreatment with gaseous chlorine was discontinued in 1988 in favor of chlorine dioxide that does NOT create certain regulated byproducts. After oxidation and disinfection, particulate matter is coagulated using polyaluminum chloride. The coagulant causes the particles in the water to stick to each other, increasing the overall size and weight of the particles. The water then moves into settling basins where these new larger particles sink to the bottom and are removed. The clarified water then travels into the filtration building where the water is vacuumed through hollow fiber ultrafiltration membranes and then flows through eight huge granular activated carbon contactors. These new filters are designed to remove any remaining particulate matter, even particles smaller than bacteria or viruses. The GAC contactors adsorb any remaining organic compounds that could cause objectionable tastes and odors. After charcoal filtration, the water is pH neutralized and a disinfectant residual is added before the water is pumped to the community. Fluoride is also added to prevent tooth decay at the CDC/ADA recommended level of 0.7 parts per million.

CUSTOMER COMMITMENT

The MUD#2, TUA and DRUC are committed to producing safe and reliable water for all of our customers' water needs. The MUD#2, TUA and DRUC are proud to report that the water produced by the DRUC filtration plant met all federal and state standards for drinking water during 2020. In fact, the MUD#2, TUA and DRUC have never exceeded any USEPA or State standard or regulation since it was formed in 1976.

The Commission is also very proud of the 99.5% average score achieved on inspections by the Tennessee Division of Water Resources over the last 25 years. The MUD#2 and DRUC both employ a full-time staff to manage, operate and monitor both source and product water quality including environmental engineers, biologists/chemists and certified water treatment plant and distribution system operators. Thousands of tests are conducted each month on water samples at the treatment plant and throughout the distribution systems to ensure that the water remains safe and pure at all times. Over the past thirty years, the DRUC has invested over $17,000,000 in state-of-the-art technology and upgrades to the treatment facilities, improving both water quality and reliability. The DRUC also operates a USEPA and State certified laboratory at the water treatment plant, analyzing water samples for the utilities as well as the general public.

REQUIRED INFORMATION FROM THE US EPA

All 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 (800-426-4791). The sources of drinking water (both bottled water and tap water) include rivers, lakes, streams, reservoirs, ponds, 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 chemicals, which are byproducts of industrial processes and petroleum production, and also come from gas stations, urban stormwater runoff and septic tanks. Radioactive contaminants, which can be naturally-occurring or 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

VULNERABLE POPULATIONS

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 about food preparation, sanitation and handling of infants or pets as well as drinking water from their health care providers. 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 toll free at (800-426-4791) or on the Internet at www.epa.gov/ogwdw.

ATENCIÓN

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

INFORMATION AND INVOLVEMENT

For more information about this report or other water quality questions, contact the MUD#2 at (931)695-5362 or DRUC at (931) 455-6458 or on the Internet at **www.druc.org** or by email at **manager@druc.org**. The Moore Utility Department #2 meets on the second Tuesday of every month at 6:00 pm at the MUD#2 offices at 705 Fayetteville Highway, Lynchburg, Tennessee. The Public is always welcome to participate.

METRO UTILITY DEPARTMENT #2

(Cobb Hollow, Ledford Mill, Ridgeville, and Tankersley Ridge Area Residents Only)

2020 WATER QUALITY DATA

QUALITY ASSURANCE

In order to ensure that tap water is safe, the U.S. Environmental Protection Agency prescribes regulations that require utilities to monitor regularly for numerous substances in the water it produces. An independent laboratory certified by the EPA and the State of Tennessee performs this testing. All testing is conducted in compliance with current regulations. **The water supplied to MUD#2 by the TUB from DRUC has never exceeded the limits for any regulated compound or substance as established by the State of Tennessee or U. S. EPA.**

TEST RESULTS – NONE DETECTED: Analysis is routinely performed for the following list of substances. **NONE** were detected in the water.

PRIMARY ORGANICS	*VOLATILE ORGANICS*	*VOLATILE ORGANICS*	*INORGANICS*	*SYNTHETIC ORGANICS*	*SYNTHETIC ORGANICS*
Alachlor	Bromobenzene	Dichloropropane	Arsenic	Carbofuran	Metolachlor
Aldicarbs	Bromochloromethane	Dichloropropene	Antimony	Chlordane	Metribuzin
Benzene	Bromodichloromethane	Ethylbenzene	Beryllium	Dalapon	Oxamyl
CarbonTetrachloride	Bromomethane	Fluorotrichloromethane	Cadmium	Dicamba	PCB 1016
Dichloroethane	Butylbenzene	Hexachloro-1,3-butadiene	Chromium	Dieldrin	PCB 1221
Dichloroethylene	Chlorobenzene	Isopropylbenzene	Cyanide	Dinoseb	PCB 1232
Endrin	Chlorodibromomethane	p-Isopropyltoluene	Mercury	Di(2-ethylhexyl)adipate	PCB 1242
Lindane	Chloroethane	Naphthalene	Nickel	Di(2-ethylhexyl)phthalate	PCB 1248
Methoxychlor	Chloromethane	n-Propylbenzene	Selenium	2,3,7,8-TCDD (Dioxin)	PCB 1254
Paradichlorobenzene	o-Chlorotoluene	Styrene	Thallium	Endothall	PCB 1260
Toxaphene	p-Chlorotoluene	Tetrachloroethane	*SYNTHETIC ORGANICS*	Ethylene dibromide	Pentachlorophenol
Trichloroethane	Dibromomethane	Tetrachloroethylene	Aldicarb	Glyphosate	Picloram
Trichloroethylene	m-Dichlorobenzene	Toluene	Aldicarb Sulfone	Heptachlor	Propachlor
VinylChloride	o-Dichlorobenzene	Trichlorobenzene	Aldicarb Sulfoxide	Heptachlorepoxide	Simazine
2,4-D	Dichlorodifluoromethane	Trichloroethane	Aldrin	Hexachlorobenzene	*RADIONUCLIDES*
2,4,5-TP (Silvex)	Dichloroethane	Trichloropropane	Butachlor	Hexachlorocyclopentadiene	Gross Alpha
ASBESTOS	Dichloroethylene	Trimethylbenzene	Benzo(a)pyrene	3-Hydroxycarbofuran	Radium 226
Asbestos Fibers	Dichloromethane	Xylene	Carbaryl	Methomyl	

TEST RESULTS – REQUIRED REPORTING OR DETECTED COMPOUNDS

The following water quality analysis and testing information is required reporting or are substances that were detected in the drinking water.
All of the substances that were detected are present at levels well below the U. S. EPA limits and do not pose a health risk to the general public.

Substance (units)	EPA Limit (MCL)	MUD#2 Maximum	MUD#2 Range	EPA Goal (MCLG)	Possible Source of the Contaminant
Microbial -Total Coliform	TT*	None	None	N/A	Naturally present in the environment
* During the past year the Metro Utility Department met all treatment technique and monitoring and reporting requirements. No assessments or corrective action were required.					
Fecal Coliform & E. Coli (# Positive)	0	0	0	0	Human and animal fecal waste
Total Organic Carbon (ppm)*	TT*	1.7	1.1 - 1.7	N/A	Naturally present in the environment
Turbidity (NTU)*	TT*	0.05	0.02 - 0.05	N/A	Turbidity does not present any risk to your health and is measured to assess the effectiveness of the filtration system.
* The Treatment Technique requirements for both Turbidity and Total Organic Carbon were met throughout the year.					
Inorganic Compounds					**Substances of mineral origin**
Chlorine (ppm)	MRDL = 4	1.00	0.60 - 1.00	MRDLG = 4	Water additive used to control microbes
Chlorine Dioxide (ppb)	800	17	1 - 17	800	Water additive used to control microbes
Chlorite (ppm)	1	0.40	0.07 - 0.40	0.80	Byproduct of drinking water chlorination
Fluoride (ppm)	4	1.05	0.00 - 1.05	4	Added to prevent tooth decay, natural erosion
Nitrate (ppm)	10	0.7	0.7	10	Agricultural runoff, natural erosion, sewage discharge
Sodium (ppm)	N/A	4.9	4.9	N/A	Natural erosion, component of water additives
Copper (ppm)	AL (Action Limit) = 1.3	0.24	None of 5 samples exceeded the action limit	1.3	Corrosion of household plumbing, - 2020 Data
Lead (ppb)	AL (Action Limit) = 15	1	None of 5 samples exceeded the action limit	0	Corrosion of household plumbing, - 2020 Data
Organic Compounds					**Natural or synthetic carbon-based compounds**
Haloacetic Acids Total (ppb)	60	35	35	0	Byproduct of drinking water disinfection
Trihalomethanes Total (ppb)	80	58	58	0	Byproduct of drinking water disinfection

DEFINITIONS: 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. 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. MRDL: Maximum Residual Disinfectant Level, or 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, or 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 the disinfectants to control microbial contaminants. AL: Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow. TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water. BDL: Below the Detection Limit. ppb: Parts per billion or micrograms per liter (explained in terms of money as one penny in $10,000,000.00. ppm: parts per million or milligrams per liter (explained in terms of money as one penny in $10,000.00. pCi/L: picocuries per liter. NTU: Nephelometric Turbidity Unit; Turbidity is a measure of the clarity of the water. Turbidity in excess of 5 NTU becomes just noticeable to the average person. * The Treatment Technique requirements for both Turbidity and Total Organic Carbon were met throughout the year.

USEPA NOTICE ON LEAD: 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. MUD 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, test methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead. No lead has ever been detected in samples of the water from the Reservoir or leaving the DRUC Water Filtration Plant.

SOURCE WATER MONITORING TEST RESULTS: The DRUC water source, Normandy Reservoir, is very clean and the DRUC encounters no difficulty in treating the water to EPA and State of Tennessee standards. The DRUC routinely monitors the reservoir water for various contaminants and any indication of potential pollution. Prevention of pollution of our water source is one of our highest priorities. Below is a summary of recent source water testing in cooperation with other agencies including the USEPA, State of Tennessee and Tennessee Valley Authority. NONE of these contaminants have ever been found in the water distributed to customers.

CRYTOSPORIUDIUM OOCYSTS: From 2014 thru 2016, the DRUC completed testing on **reservoir water** for this common organism found in nature, mostly as a result of the presence of wildlife and livestock animals. These monthly sampling events did **not** detect any oocysts. These test results are excellent and indicate that there is **no** significant contamination of the reservoir from livestock or wildlife.

NOTE: Federal regulations now require all surface water systems serving more than 10,000 people to sample for Cryptosporidium. The DRUC previously completed this required testing in 2004 thru 2006 and 2014 thru 2016. Cryptosporidium is a microbial parasite which is found in surface waters throughout the United States. **No cryptosporidium oocysts were ever detected in any drinking water samples.** Cryptosporidium is effectively removed by filtration and the DRUC system currently provides treatment which is designed to remove cryptosporidium. The USEPA has determined that the presence of cryptosporidium at the concentration level reported in our source water is insignificant, based on the level of treatment we currently provide. Symptoms of cryptosporidium 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).

METRO UTILITY DEPARTMENT #2: 2021 WATER QUALITY REPORT

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ATENCIÓN

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Winchester Utility System
2020 Water Quality Report

Utility Information: Winchester Utility System is proud to present to you our annual water quality report. This report covers all testing completed January 1, 2020 through December 31, 2020. We have dedicated ourselves to delivering the best water that we can provide for our customers and community. We look forward to the challenges of source water protection, water conservation, and community education. We serve approximately 20,000 customers and maintain nearly 360 miles of water mains with 6 storage tanks.

Is my drinking water safe?

Yes. Our treated water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that could be in drinking water. As you will see in the chart on the back, we detected only 11 of these contaminants. We found all of these contaminants to be at safe levels.

What is the source of my water?

Your water comes from the Elk River on Tim's Ford Lake located on State Highway 130, about 3 miles from Winchester. Our goal is to protect our water from contaminants and we are working with the State of Tennessee to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving this water system. The SWAP Report assesses the susceptibility of public water supplies to potential contamination. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate), or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The Winchester Water System sources are 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 EPA can be viewed at: http://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html or you may contact the Winchester Water System or TDEC toll free at 1-888-891-8332 to obtain copies of specific assessments.

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 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 chemical, 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this same regulation. 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 1-800-426-4791.

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

How can I get involved?

The Board of Public Utilities meets on the second Monday of each month at the Winchester Utility System Main office at 219 2nd Ave N.W. Please feel free to participate in these meetings.

Is our 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 these requirements. We want you to know that we pay attention to all the rules.

Other Information:

Due to all water containing dissolved contaminants, occasionally your water may exhibit slight discoloration. We at the Winchester Water System work around the clock to provide quality water to every service tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our Families' health. We are also working with all our customers to identify and install backflow prevention on all connections to our system that have potential hazards to our customers.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have under-gone 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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. 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 at (800) 426-4791.

For more information about your drinking water, please call Mr. Adam Denton at Winchester Utility System at (931) 967-4021.

Water Quality Data

What does this chart mean?

- Maximum Contaminant Levels (MCL): The MCLs are set at very stringent levels. 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.
- Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a safe margin of safety.
- Maximum Residual Disinfectant Level Goal (MRDLG): 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.
- Parts per million (ppm) or Milligrams per liter: 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.
- Parts per billion (ppb) 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.
- Action Level (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Nephelometric Turbidity Unit (NTU): Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- Turbidity: 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 that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Turbidity is a good indicator of the effectiveness of our filtration techniques.
- Non-Detects (ND): Laboratory analysis indicates that the contaminant is not present.

Unless otherwise noted, the data presented in this table is from sampling performed during the 2020 calendar year.

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0		2020		0	TT Treatment Technique	Naturally present in the environment
TOC[1] (Total Organic Carbon)	No	46.67% removal		2020		35% removal	TT	Naturally occurring in the environment
Turbidity[2]	No	0.29		2020	NTU	N/A	TT	Soil runoff
Copper[3]	No	90th%= 0.13		2020	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead[3]	No	90th%= 0		2020	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Chlorine	No	2.53Avg.		2020	ppm	MRDLG 4	MRDL=4	Disinfectant to control microbes
Sodium	No	4.30		2020	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
THAA (Total Haloacetic Acids)	No	33 Avg.	6-55	2020	ppb	0	60	By-product of drinking water chlorination
TTHM (Total Trihalomethanes[4]	No	31 Avg.	9-80	2020	ppb	0	80	By-product of drinking water chlorination
Chlorite	No	0.500 Avg.	0.01-0.99	2020	ppm	0.8	1	By-product of chlorine dioxide use
Chlorine Dioxide	No	0.07 Avg.	1-260	2020	Ppb	800	800	Disinfectant to control microbes
Atrazine	No	ND	0	2020	mg/l	0.003	0.003	Herbicide-Weed Control
2, 4-D	No	ND	0	2020	mg/l	0.07	0.07	Herbicide -Weed Control
Tim's Ford Lake Cryptosporidium	No	0.017	0-1.3	2018	Oocysts/L	N/A	N/A	Human or Animal Waste
Nitrate	No	0.882	0	2020	Mg/l	10	10	Nitrate accumulates in agricultural watersheds where spread inorganic fertilizers and animal manures on cropland.

UCMR 4

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Manganese	No	1.16 avg.	0.40-2.1	Quarterly	ppb	N/A	N/A	Naturally Present In Environment
Bromochloracetic Acid	No	2.04 avg.	1.4-2.6	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Bromodichloroacetic Acid	No	1.99 avg.	1.4-2.4	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Chlorodibromoacetic Acid	No	0.35 avg.	0.00-0.50	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Dibromoacetic Acid	No	0.05 avg.	0.00-0.34	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Dichloroacetic Acid	No	13.92 avg.	9.2-18.5	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Monobromoacetic Acid	No	0.05 avg.	0.00-0.36	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Monochloroacetic Acid	No	0.05 avg.	0.00-0.36	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection
Trichloroacetic Acid	No	13.18 avg.	8.6-19.7	Quarterly	ppb	N/A	N/A	By-product of Drinking water disinfection

These are Unregulated Contaminant Monitoring (UCMR4) Sampling as required by EPA - May 2019 start date. These Unregulated contaminants don't yet have a drinking water standard set by EPA. The purpose is to assist the EPA in determining the occurrence of the unregulated contaminants in the drinking water. This will determine if the contaminants should have a standard.

Health Effects

[1]TOC the Winchester Water System met the treatment technique for TOC for 2020.
[2]We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.
[3] During the most recent round of Lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level for lead, 0 out of 30 households sampled contained concentrations exceeding the action level for copper.
[4]TTHMs [Total Trihalomethanes]. 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.
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. Winchester Utility System 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 www.epa.gov/safewater/lead.
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 indicated the presence of *Cryptosporidium* in 1 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, immune-compromised people have more difficulty and are at greater risk of developing severe, life threatening illnesses. Immune-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 at 1-800-426-4791.

Your water is safe to drink.