



# Winchester Utility System

## 2024 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, 2024, through December 31, 2024. 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. This 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 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 2<sup>nd</sup> 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 2023 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		2024		0	TT Treatment Technique	Naturally present in the environment
TOC <sup>1</sup> (Total Organic Carbon)	No	49.05% removal		2024		35% removal	TT	Naturally occurring in the environment
Turbidity <sup>2</sup>	No	0.17		2024	NTU	N/A	TT	Soil runoff
Copper <sup>3</sup>	No	90 <sup>th</sup> %=0.071		2023	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead <sup>3</sup>	No	90 <sup>th</sup> %=ND		2023	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Chlorine	No	2.41 Avg.		2024	ppm	MRDLG 4	MRDL=4	Disinfectant to control microbes
Sodium	No	9.22		2024	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
THAA (Total Haloacetic Acids)	No	17 Avg.	6-55	2024	ppb	0	60	By-product of drinking water chlorination
TTHM (Total Trihalomethanes <sup>4</sup> )	No	16 Avg.	9-80	2024	ppb	0	80	By-product of drinking water chlorination
Chlorite	No	0.51 Avg.	0.01-0.99	2024	ppm	0.8	1	By-product of chlorine dioxide use
Chlorine Dioxide	No	0.08 Avg.	1-260	2024	Ppb	800	800	Disinfectant to control microbes
Atrazine	No	0.00007	0	2024	mg/l	0.003	0.003	Runoff from herbicide used on row crops
Alachlor	No	ND	0	2024	mg/l	0	0.002	Runoff from herbicide used on row crops
Simazine	No	ND	0	2024	0g/l	0	0.004	Herbicide runoff
2, 4-D	No	ND	0	2024	mg/l	0.07	0.07	Herbicide -Weed Control

Fluoride	No	0.49 avg.	.50-.70	2024 Quarterly	ppm	4.0	4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross ALPHA-	No	-0.625	0	2023	pCi/l	0	15.0 pCi/l	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Radium 228- Radium 226-	No No	BDL BDL	0 0	2023	pCi/l	0	5.0 pCi/l 5.0 pCi/L	Erosion of natural deposits
MBAS - methylene blue active substances	No	ND	0	2023	mg/l	0		detergent or foaming agent
Tims Ford Lake, Cryptosporidium	No	0.017	0-1.3	2018	Oocysts	N/A	N/A	Human or Animal Waste
Nitrate	No	0.252	0	2024	Mg/l	10	10	Nitrate accumulates in agricultural watersheds where spread inorganic fertilizers and animal manures on cropland.

#### Health Effects

<sup>1</sup>TOC the Winchester Water System met the treatment technique for TOC for 2024.

<sup>2</sup>We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.

<sup>3</sup> 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.

<sup>4</sup>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.

*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.

*Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Winchester Utility System is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you*

are concerned about lead in your water and wish to have your water tested, contact Adam Denton at 931-967-4021 or Tim Solomon at 931-967-2238. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

*Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.*

*0 out of 30 households sampled, no samples contained concentrations exceeding the action level during the most recent round of lead and copper testing.*

*Lead- 29 out of 30 samples were non-detectible. One sample was at detectible limit from the laboratory: 0.00872 Parts Per Billion.*

*Cooper- 30 out of 30 were at the laboratory detection limit.*

*Lowest result- 0.00213 Parts Per Million*

*Highest Result- 0.14800 Parts Per Million*

*All samples tested for Lead & Copper were not at Maximum Contaminant Level.*

**Lead Service Line Inventory can be seen at <https://www.winchesterutilities.com/lsl/>**

**Your water is safe to drink.**