

Morristown Water System



WATER QUALITY REPORT 2023

IS MY DRINKING WATER SAFE?

We are pleased to present the Morristown Utilities Commission 2023 Water Quality Report. This is the annual report to you, the customer, informing you about the quality of drinking water that we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. This report is a summary of the quality of water provided to customers last year. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

WHAT IS THE SOURCE OF MY WATER?

Morristown's water supply comes from two sources. A surface source at Cherokee Lake/Holston River and a ground water source called Havelly's Spring. Both sources are mixed together before being treated. A Source Water Protection Plan for Cherokee Lake/Holston River and Wellhead Protection Plan for Havelly's Springs is available for your review by contacting Gary C. Brown at the Morristown Utilities Commission between 7:00 a.m. to 3:30 p.m. weekdays. The water sources used by Morristown Utilities have only a slight potential for contamination by common things like gasoline, oil, etc.

Our goal is to protect our water from contaminants, and we continue to work with State and Federal Agencies 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. Our sources are rated as reasonably susceptible to potential contamination. An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scoring, and the overall TDEC report to EPA can be viewed online at <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html> 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. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this 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 EPA's Safe Drinking Water Hotline at (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 it 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, may be present.

- 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, 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, the EPA and the Tennessee Department of Environment and Conservation prescribe regulations that limit the amount of certain contaminants in the water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

INFORMATION FOR CONSUMERS AT RISK

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

INFORMATION FOR CONSUMERS ABOUT LEAD AND COPPER RULE

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. Morristown Water 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 <http://www.epa.gov/safewater/lead>

As of January 4, 2014, MUC is complying with Senate Bill 3874, which reduces lead in all products in contact with drinking water from 8% to 0.25%. This means all companies must use no-lead brass for the installation of products contacting potable water.

As part of our treatment process, we add a corrosion inhibitor to help prevent corrosion of iron, lead, and copper from the water lines.

CROSS-CONNECTION INFORMATION

We would like to remind all of our customers that the Morristown Water System and all utilities across Tennessee are concerned about cross-connections.

A cross-connection is a situation where a possible source of contamination is directly linked to our public water supply.

Over the next few months, as the weather warms, people will begin to work outdoors in their gardens, yards, and swimming pools. Activities like these all have a risk of contaminating the domestic water supply through a simple garden hose. Contamination can occur when the end of a hose is submerged in any liquid or attached to devices that spray pesticides, herbicides, or fertilizers. The cross-connection contamination can happen if there is a main water line break or if a fire hydrant is used to pump water for fire suppression. These two situations could create a "back siphon" effect (negative water pressure), causing the water (or liquids) to flow backwards into the water supply. The examples listed are a couple of common situations that have the potential to create a public health hazard.

Devices are available to prevent water from back flowing into the water supply; however, the best solution is to always be careful how you use your water hose by keeping an air separation between the end of the hose and the intended destination of the water.

Please help us provide a safe supply of water to all of our customers. Remember to never place your water hose in anything you would not want to drink. For more information on cross-connections and how to protect against them, call Michael Robeson, our certified Cross-Connection Specialist at 423-317-6316.

NEW ADDITIONAL CROSS-CONNECTION REQUIREMENTS

As part of the continuing Cross-Connection Control Program at Morristown Utilities Commission, we are currently putting in place a plan to survey all of our commercial and residential customers. In order to protect the public drinking water from an actual or potential health hazard caused by backsiphonage, or backpressure, of toxic or objectionable substances through the domestic water lines, fire protection lines, or yard sprinkler lines, we will be requiring those customers with potentially harmful cross connections to install a reduced pressure backflow preventer. These backflow preventers will protect the public potable water from the backflow of dangerous substances that could endanger the public's health or physically damage the public water system.

Please note: In the near future, you may receive a letter from MUC notifying you that we will need to perform a survey of your plumbing fixtures or a letter notifying you of the need to install a reduced-pressure backflow preventer.

WATER SYSTEM SECURITY

Following the events of September 2001, we realize the concern about the security of 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 423-586-1451.

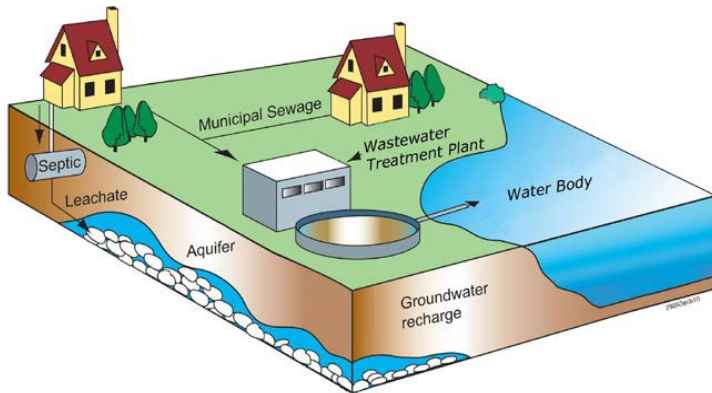
HOW CAN I GET INVOLVED?

The Morristown Utilities Commission's board meetings are held in the MUC Business Office Boardroom. Board meetings are generally held on the fourth Wednesday of each month at 9:00 a.m. For more information please contact the business office at (423) 586-4121. For more information, about drinking water or this report, please call Gary C. Brown at 423-586-1451 or visit our Web site at [Utilities - Morristown Utilities \(musfiber.com\)](http://Utilities - Morristown Utilities (musfiber.com))

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OUR OPERATIONS?

Yes, the Morristown Utilities Commission strives to operate within the regulations set forth by the Tennessee Department of Transportation (TDOT), the Environmental Protection Agency (EPA), the Tennessee Occupation Safety and Health Administration (TOSHA), and the Tennessee Department of Environment and Conservation (TDEC).

PHARMACEUTICALS IN DRINKING WATER



Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's waterways by disposing in one of our permanent pharmaceutical take back bins. There are nearly 100 take back bins located across the state, to find a convenient location please visit: <http://tdeconline.tn.gov/rxtakeback/>

OTHER INFORMATION

Due to all water containing dissolved contaminants, occasionally your water may exhibit a slight discoloration. We strive to maintain standards to prevent this. We are working around the clock to provide top-quality water to every 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 children's future.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

2023 Water Quality Data (cont.)

1 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. We met the treatment technique for turbidity with 99.4% of monthly samples below the turbidity limit of 0.3 NTU. Water must be below 0.30 NTU in at least 95% of the samples. 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.

2 We have met the Treatment Technique requirement for Total Organic Carbon in 2023. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may increase risk of getting cancer.

3 During the most recent round of Lead and Copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level.

4 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 0 out of 9 samples.

Terms & Definitions

Action Level (AL) is the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) 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

Maximum Contaminant Level Goal (MCLG) 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.

Maximum Residual Disinfectant Level Goal (MRDLG) 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.

Maximum Residual Disinfectant Level (MRDL) is the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

Million fibers per liter (MFL) is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Millirems per year (mrem/yr) is the measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-Detects (ND) means that laboratory analysis indicates the contaminant is not present above the method's detection capability

Picocuries per liter (pCi/L) is a measure of the radioactivity in water.

Parts per million (ppm) or milligrams per liter (mg/l) One part per million is equivalent to one minute in *two* years or a single penny in \$10,000

Parts per billion (ppb) or micrograms per liter One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000

Parts per trillion (ppt) or nanograms per liter (nanograms/l) One part per trillion corresponds to one minute in 2,000,000 years or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or picograms per liter (picograms/l) One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water.

Turbidity is a measure of the cloudiness of water and does not present any risk to your health. We monitor turbidity as a good indicator that our filtration system is functioning properly.

Note: The following common scientific measurements of substances in water may be difficult to envision. To make them easier to understand, we have related them to examples.