



CLINTON UTILITIES BOARD

2023 WATER QUALITY REPORT

Clinton Utilities Board (CUB) is pleased to provide you with this Consumer Confidence Report (CCR) announcing that the water we treat and distribute meets or exceeds all federal and state requirements. At CUB's award-winning water treatment plant thousands of tests are performed annually to ensure that all CUB customers are provided safe, high-quality drinking water. We are proud of our history of providing high-quality drinking water and are committed to maintaining this level of excellence.

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) prescribe regulations which limit the levels of certain contaminants in 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.

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 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.

The table included in this CCR displays the results of our monitoring for the period of January 1, 2022, to December 31, 2022. All drinking water, including bottled water, may 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 (1-800-426-4791).

The source of the drinking water CUB treats and distributes is the Clinch River, a "surface water" supply. TDEC has prepared a Source Water Assessment Program (SWAP) Report for our section of the Clinch River. The SWAP Report assesses the susceptibility of our untreated water source to *potential* contamination. Tennessee's 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 section of the Clinch River has been rated by TDEC as "reasonably susceptible" to *potential* contamination.

An explanation of Tennessee's Source Water Assessment Program, the SWAP summaries, susceptibility scorings 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 Clinton Utilities Board to obtain copies of the Lower Clinch Watershed assessment.

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 their drinking water from their health care providers. EPA/Centers for Disease Control (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 (1-800-426-4791).

Contact Information

- For more information about CUB's water, contact CUB's Water Department at 865-457-9232.
- CUB's Board meets monthly. Information about regularly scheduled board meetings can be obtained by calling CUB.



Water Quality Data

What does this chart mean?

- AL - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Avg. - Average Level
- 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.
- 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 disinfectants to control microbial contaminants.
- N/A - Not Applicable
- NTU - Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity greater than 5 NTU is just barely noticeable to the average person.
- pCi/L - Picocuries per liter - A measure of radioactivity.
- ppb - Parts per billion or micrograms per liter (µg/L) - 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.
- RTCR - Revised Total Coliform Rule. This rule went into effect on April 1, 2016, and replaces the MCL for total coliform with a "Treatment Technique" trigger for a system assessment.
- TT - Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

| Contaminant | Violation Yes/No | Level Found | Range of Detections | Date of Sample | Unit Measurement | MCLG | MCL | Likely Source |
|-----------------------------------|------------------|---------------------------|-----------------------------|----------------|------------------|------------|----------|---|
| REGULATED CONTAMINANTS | | | | | | | | |
| Turbidity ¹ | No | 0.12 | 0.02 - 0.12 | 2022 | NTU | N/A | TT | Soil runoff |
| Copper ² | No | 90 th %= 0.173 | 0.00962 - 0.401 | 2022 | ppm | 1.3 | AL=1.3 | Corrosion of household plumbing systems |
| Fluoride | No | 0.75 Avg. | 0.68 - 0.81 | 2022 | ppm | 4 | 4 | Erosion of natural deposits; Water additive |
| Lead ² | No | 90 th %= 1.0 | All samples were <2.0 | 2022 | ppb | 0 | AL=15 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Sodium | No | 5.58 *9.83 | N/A | 2022 | ppm | N/A | N/A | Erosion of natural deposits; Used in some home water treatment systems |
| Total Trihalomethanes (TTHM) | No | 66 Avg. ³ | 34.5 - 98.6 *22.8 - 82.8 | 2022 | ppb | N/A | 80 | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) | No | 53 Avg. ³ | 24.2 - 75.7 *24.3 - 65.3 | 2022 | ppb | N/A | 60 | By-product of drinking water disinfection |
| Total Organic Carbon ⁴ | No | 1.15 Avg. | 1.06 - 1.23 | 2022 | ppm | TT | TT | Naturally present in the environment |
| Chlorine | No | 1.62 Avg. 1.51 Avg. | 0.60 - 2.50 *0.50 - 2.50 | 2022 | ppm | MRDLG 4 | MRD 4 | Water additive used to control microbes |
| Nitrate | No | 0.617 *0.483 | N/A | 2022 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, erosion of natural deposits |

NOTES:

¹ Turbidity is a measure of the cloudiness or haziness of the water. CUB monitors turbidity because it is a good indicator of the effectiveness of our filtration system. In 2022, CUB met the treatment technique requirement for turbidity with 100% of samples below the turbidity limit of 0.15 NTU.

² During the most recent sampling of lead and copper, **none** of the households sampled contained concentrations exceeding the action levels. All lead samples were below the laboratory detection limit of <0.0020 ppm. The lead 90th Percentile of 0.001 ppm was conservatively established as ½ the laboratory detection limit. 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. CUB 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>.

³ Highest Locational Running Annual Average (LRAA): The highest average concentration at a particular location for four consecutive quarters.

⁴ CUB met the treatment technique requirements for Total Organic Carbon.

*Concentration at the I-75 Industrial Park area only.