

Calhoun - Charleston Utility District

Water Quality Report

2020

Water Sources and Protection

The source of Calhoun- Charleston Utility District water is surface water from the Hiwassee River. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water sources to potential contamination. The Tennessee Department of Environment and Conservation (TDEC) and CCUD have prepared a Source Water Assessment Program (SWAP) Report for susceptibility of untreated water sources to potential contamination. To insure safe drinking water, all public water systems treat and routinely test their water. The CCUD source has been rated as reasonably susceptible based on geologic factors and human activities in the vicinity of the water source. An explanation of Tennessee's source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and 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

contact CCUD/Hiwassee Utilities at 423-336-2891 or 423-336-3571, Monday – Friday between 8:00 a.m. and 4:00 p.m.

Water Operations and Testing

The HUC facility is a surface water treatment plant which is staffed with state licensed operators. Calhoun- Charleston Utility District is contracted for the operation of the facility. The operations staff is responsible for overseeing the treatment operation and performing quality control checks over all of the water produced by these plants. Calhoun- Charleston Utilities' Environmental and Regulatory Compliance Department is responsible for regulatory sampling, analytical testing, and cross connection control to ensure that the quality and protection of the drinking water meets stringent State and Federal regulations.

Contaminant Information

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 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 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. Tennessee Department of Environment and Conservation prescribe regulations which limit the amount 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

Special Health Information

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 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 their 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 (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. CCUD 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>.

Cryptosporidium

Cryptosporidium is a microscopic parasite which is found in surface water throughout the U. S. and comes from animal waste and run-off. When ingested it can result in diarrhea, fever and other gastrointestinal symptoms. Cryptosporidium can be eliminated by an effective treatment combination including coagulation, sedimentation, filtration, and disinfection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791).

CCUD provides consumers current water quality information by calling 423-336-3571 between the hours of 8:00 am and 4pm Monday -Friday or on our web site at www.ccutdn.com. The monthly board meeting is held the 3rd Monday night at 6pm in our office.

| REGULATED AT DISTRICTION SYSTEM ENTRY POINT (WATER TREATMENT FACILITY) | | | | | | |
|--|-------------------|--------------------------|---|-----------------|-----------|---|
| Contaminant (unit) | Analyzed | Violation | Level Detected | MCL | MCLG | Source of Contaminant |
| Turbidity (ntu) (1) | 2021 Range (2) | N | 0.26 0.01-0.26 | TT | TT | Soil Runoff |
| Fluoride (ppm) | 2021 Range | N | 0.73 0.15-0.68 | 4.0 | 4.0 | Erosion of natural deposits;Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate (ppm) | 2020 | N | 0.36 | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Total Organic Carbon (TOC) (ppm) (3) | 2020 | N | Average 0.67 (3) Range 0.51-0.64 | TT | NA | Naturally present in the environment |
| Combined Radium (pCi/l) | 2020 | No | 2.31 | 5 | NA | Erosion of natural deposits |
| Sodium (ppm) | 2020 | No | 2.31 | NA | NA | Erosion of natural deposits: Used in water treatment |
| REGULATED IN DISTRIBUTION SYSTEM AND CUSTOMER TAP | | | | | | |
| Substance (unit) | Analyzed | Violation | Level Detected | MCL | MCLG | Source of Contaminant |
| Chlorine (ppm) | 2020 | N | Max Level 2.1 Range 2.0-2.1 | MRDL 4.0 | MRDLG 4.0 | Water additive used to control microbes |
| Total Trihalomethane (TTHM)(ppb) | 2020 2 | N | Maximum : 48.5 | 80 | | By - product of drinking water chlorination |
| Haloacetic Acids (HAA5)(ppb) | 2021 2 | N | Maximum : 25.2 | 60 | | By - product of drinking water chlorination |
| Total Coliform (MPN/100ml) | 2020 | Sample Frequency: | Weekly 0 | TT | N/A | Naturally present in the environment |
| E Coli (MPN/100ml) | 2020 | Once /week | 0 | *See Definition | 0 | Human and animal fecal waste |
| Lead (90th percentile)(ppb) | 2018 Range | N | 1.56 | 15 ppb | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) | 2018 Range | N | 0.0508 | 1.3 ppm | 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits leaching from wood preservatives |
| UNREGULATED AT THE DISTRIBUTION SYSTEM ENTRY POINT (Water Treatment Facility) | | | | | | |
| Contaminant (unit) | Analyzed | Level Detected | Unregulated Contaminant Monitoring Rule 4 (UCMR4) | | | |
| Manganese (ppb) | 2019 | Average 5.5 Range NA | Unregulated contaminants are those for which EPA has not established primary drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800)426-4791 Note: 1 sample collected in 2019 | | | |
| Haloacetic Acids-6 (HAA6) (ppb) | 2019 | Average 1.29 Range NA | | | | |
| Haloacetic Acids-9 (HAA9) (ppb) | 2019 | Average 13.5 Range NA | | | | |
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| <p>1- 100% of CCUD samples were <0.3 NTU. Turbidity is a measurement of the cloudiness of the water. It is a good indicator of the effectiveness of the filtration system.Indicator of the effectiveness of the filtration system.</p> <p>2 = Range is the minimum to maximum of individual samples from all locations.</p> <p>3 = The State granted reduced monitoring of TOC based on data obtained from 2 years of monthly monitoring. The plant has met the TT requirements for TOC in 2018. Average is the maximum quarterly average from running annual averages of treated water. The table above indicates 'contaminants' that were detected (No Total Coliform / Ecoli Detections) in HUC produced water or are required to be reported. Not indicated are the more than additional 'contaminants' for which tests were conducted and not detected. Lead and Copper sampling is not required.</p> <p>4= Anlysis must e preformed again prior to the end of June 20, 2021. 100% of the sites tested for Lead & Copper in the CCUD system were below action level.</p> <p>*MCL Definition for E. Coli: Routine and repeat samples are total coliform - positive or system fails to take repeat samples following E. coli-positive routine samples or system fails to analyze total coliform - positive repeat sample for E. coli.</p> <p>MCL (Maximum Contaminant Level) = 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.</p> <p>MCLG (Maximum Contaminant Level Goal) = 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.</p> <p>MRDL(Maximum Residual Disinfectant Level) = The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for the control of microbial contaminants</p> <p>MRDLG (Maximum Residual Disinfectant Level Goal) = The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benfits of the use of disinfectants to control microbial contaminants.</p> <p>TT (Treatment Technique) = a required process intended to reduce the level of a contaminant in drinking water.</p> <p>AL (Action Level) = The concentration of a contaminant which triggers a treatment or other requirement which a water system must follow.</p> <p>ppm = part per million ppb = part per billion NTU = Nephelometric Turbidity Units (Measure of Water Clarity) PCU Platinum Cobalt Units (Color Standard) TON = Threshold Odor Number N/R Not Reported</p> | | | | | | |