



2022 WATER QUALITY REPORT  
Amick's Ferry Water System  
SCDHEC System No. 3250077



# 2022 Water Quality Report

Amick's Ferry Water System - DHEC System # 3250077  
Town of Chapin, South Carolina

The Town of Chapin, once again, proudly presents our annual water quality report. This report covers the period between January 1 and December 31, 2022. The Town of Chapin continues in our commitment to delivering the best-quality drinking water possible. Safe, reliable, and clean drinking water free from harmful contaminants is essential in promoting community health. In but a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. To that end, we remain vigilant in meeting the challenges of new regulations, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Although the challenges are many, we feel that by relentlessly investing in customer outreach, education, and service, system upgrades, and training, the payoff is reliable, high-quality drinking water delivered to you and your family. A source water assessment has been completed for our system by SCDHEC. For more information on this assessment, please contact SCDHEC at (803) 898-3531.

The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (DHEC) have established strict standards for all drinking water. These criteria are designed to protect consumers from bacteria and water-borne illnesses. Additionally, EPA requires community water systems to publish an annual report to disclose to its customers important information about the drinking water provided. This report identifies the characteristics and performance of the Amick's Ferry Water System in compliance with the Consumer Confidence Reports Rule of the 1996 Safe Drinking Water Act Amendments.

The Staff of the Chapin Utilities Department is pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Please feel free to contact the Utilities Department with any questions or concerns you may have. Utilities staff are available to answer questions that you may have at Chapin Town Hall, located at 157 NW Columbia Avenue in Chapin, SC. We may be reached by telephone at (803) 345-0416.



## Amick's Ferry Water System

The Town of Chapin owns and operates the Amick's Ferry Water System. Customers of the Amick's Ferry Water System may voice questions and concerns at Town Council meetings, held at Town Hall on the third Tuesday of every month at 6PM. Additionally, questions concerning daily operations and water quality issues can be directed to Town Hall at (803) 345-2444 or (803) 345-0416.

Water for the Amick's Ferry Water System is purchased in bulk from the City of Columbia Water System. The drinking water purchased from the City of Columbia is treated surface water from the Columbia Water System's Lake Murray Treatment Facility.



## Source Water Assessment

Lake Murray receives water from the Saluda River Basin. The South Carolina



Department of Health and Environmental Control (SCDHEC) periodically assess the quality of source water for drinking water systems throughout the state. SCDHEC's Source Water Assessment Report is available and can be reviewed at City of Columbia offices located at 1136 Washington Street, or by calling 803-545-3400. Our Source Water Assessment Plan is available for your review at

<http://www.scdhec.gov/HomeAndEnvironment/Water/SourceWaterProtection/>

## Drinking Water Quality

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The State of South Carolina and EPA require us to test and report on our water quality on a regular basis to ensure its safety. We have always met, and will continue to meet all of these requirements to the absolute best of our ability. We want you to know that we pay attention to every detail, and follow all the rules in order to provide the best drinking water possible. The drinking water provided by the Town of Chapin in the Amick's Ferry Water System is considered safe

by the South Carolina Department of Health and Environmental Control based upon testing performed by SCDHEC and routine monitoring performed by the Town of Chapin. The presence of listed contaminants does not necessarily indicate that the water poses a health risk.

The City of Columbia has also performed testing of the finished water produced and supplied to the Town of Chapin, with no violations having occurred during the period. The City of Columbia's Water Quality Report may be viewed at Department of Utilities and Engineering offices located at 1136 Washington Street or by calling (803) 545-3400.



## Water Quality Report

The Town of Chapin and the City of Columbia routinely monitor for various contaminants in your drinking water according to Federal and State Laws. This table shows the results of our monitoring period of January 1st to December 31st, 2022. 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 land or underground it can pick up substances or contaminants, resulting from the presence of animals or from human activity, such as microbes, inorganic chemicals, and radioactive substances. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

Unless otherwise noted, the data presented in these tables is from testing done January 1 – December 31, 2022. The state requires Chapin to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

We are pleased to report to you that there were no detections of total coliforms or fecal coliforms in the monthly samples collected during the calendar year 2022.

## Town of Chapin 2022 Consumer Confidence Report Data

<b>Lead and Copper</b>							
<b>Contaminant</b>	<b>Violation Y/N</b>	<b>90<sup>th</sup> Percentile</b>	<b>MCLG</b>	<b>Action Level (AL)</b>	<b>Units</b>	<b># Site Over AL</b>	<b>Likely source of Contamination</b>
Copper (2021)	N	0 to 0.032	1.3	1.3	ppm	0	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

<b>Disinfection and Disinfection By-Products</b>	<b>Violation Y/N</b>	<b>Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Unit</b>	<b>Likely Source of Contamination</b>
Chlorine (2022)	N	2.0 Range 1.5 to 2.0	MRDLG = 4	MRDL = 4	ppm	Water additive used to control microbes.
Haloacetic Acids (HAA5) (2022)	N	16.0 Range 8.807 to 22.21	No goal for the total	60	ppb	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (2022)	N	27.0 Range 16.99 to 30.29	No goal for the total	80	ppb	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>						
Nitrate (measured as Nitrogen) (2022)	N	1.0 Range 0.32 to 0.64	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

## City of Columbia 2022 Consumer Confidence Report Data

### Regulated Substances Detected

Substance	Highest Level Allowed (MCL)	Highest Level Detected	Range of Detection	Goal (MCLG)	Violations	Last Year Sampled	Source of Contaminant
<b>Inorganic</b>							
Fluoride (Lake Plant)	4 ppm	0.70 ppm	0-0.51 ppm	4 ppm	None	2022	Naturally occurring in the environment by erosion of natural deposits and added at the treatment plants as an aid in preventing tooth
Fluoride (Canal Plant)	4 ppm	0.70 ppm	0-0.66 ppm	4 ppm	None	2022	Naturally occurring in the environment by erosion of natural deposits and added at the treatment plants as an aid in preventing tooth
Nitrate/Nitrite (as Nitrogen) - Lake Plant	10 ppm	0 ppm	0 - 0	10 ppm	None	2022	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Nitrate/Nitrite (as Nitrogen) - Canal Plant	10 ppm	0.30 ppm	0 - 0.30 ppm	10 ppm	None	2022	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Chlorite (Lake Plant)	1 ppm	0.485 ppm	0 - 0.485 ppm	0.8 ppm	None	2022	By-product of drinking water disinfection
Chlorite (Canal Plant)	1 ppm	0.951 ppm	0 - 0.951 ppm	0.8 ppm	None	2022	By-product of drinking water disinfection
<b>Organic</b>							
Total Organic Carbon (TOC)	TT (35% or 45% removal, depending on source water TOC)	The TT requirement for TOC requires the running annual average of the TOC removal percentage achieved to be at least as great as the TOC removal percentage required. Compliance is judged quarterly, and the City met the requirement for all four quarters in 2022.		N/A	None	2022	Naturally present in the environment
<b>Microorganisms</b>							
Turbidity (Lake Plant)	< 0.3 NTU TT	0.08 NTU - Highest single measurement 100% - Lowest monthly percentage meeting		N/A	None	2022	Naturally occurring in the environment
Turbidity (Canal Plant)	< 0.3NTU TT	1.134 NTU - Highest single measurement 100% - Lowest monthly percentage meeting		N/A	None	2022	Naturally occurring in the environment
<b>Disinfectants</b>							
Chloramines	4 ppm (RAA)	3.0 ppm (RAA)	0.04 - 4.2 ppm	4 ppm (MRDLG)	None	2022	Water additive to control microbial growth
Chlorine Dioxide (Lake Plant)	800 ppb (MRDL)	556 ppb	0 - 556 ppb	800 ppb (MRDLG)	None	2022	Water additive to control microbial growth
Chlorine Dioxide (Canal Plant)	800 ppb (MRDL)	466 ppb	0 - 466 ppb	800 ppb (MRDLG)	None	2022	Water additive to control microbial growth
<b>Radioactive</b>							
Beta/photon	50 pCi/L (1)	5.36 pCi/L	4.73 -5.36 pCi/L	0	None	2021	Decay of natural and man-made deposits.
Combined radium 226/228	5 pCi/L	0.735 pCi/L	0 - 0.735 pCi/L	0	None	2021	Erosion of natural deposits.
Gross alpha excluding radon	15 pCi/L	0.872 pCi/L	0 - 0.872 pCi/L	0	None	2021	Erosion of natural deposits.

(1) The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L of beta particles to be the level of concern associated with this MCL.

## City of Columbia 2022 Consumer Confidence Report Data

### Unregulated Substance Detected

Substance	Highest Level Allowed (MCL)	Highest Level Detected	Range of Detection	Goal (MCLG)	Violations	Last Year Sampled	Source of Contaminant
Sodium (Lake Plant)	unregulated	6.6	0-6.6 ppm	N/A	N/A	2022	Naturally occurring in the environment
Sodium (Canal)	unregulated	10.0 ppm	0-10.0 ppm	N/A	N/A	2022	Naturally occurring in the environment

## Quality of Your 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. Amicks Ferry 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 drinking 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 you can see by the table, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring, or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 the 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.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

***Non-Detects (ND)*** - laboratory analysis indicates that the constituent is not present.

***Parts per million (ppm) or Milligrams per liter (mg/l)*** - 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*** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

***Action Level*** - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

***Treatment Technique (TT)*** - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

***Maximum Contaminant Level (MCL)*** - (mandatory language) The "Maximum Allowed" (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)*** -The "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.



## Substances that may be present in source water include:

### Potential Contaminants:

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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 chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban storm-water runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

### Health Effects of Contaminants

**Copper:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilsons Disease should consult their personal doctor.

**Fluoride:** Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

**Lead:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Nitrate:** Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

**Total Coliform:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. If coliforms were found in more samples than allowed, this would be a warning of potential problems.