



**2019 WATER QUALITY REPORT
Amick's Ferry Water System
SCDHEC System No. 3250077**



2019 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, 2019. 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. Our water source is treated surface water purchased from the City of Columbia Water System's Lake Murray Plant. This report is designed to inform you about the quality water and services we deliver to you every day. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. 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. We hope that you find this report informative, and comprehensive. We value your input, and are happy to address any concerns our customers may have. 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 first Tuesday of each month. 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 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 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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity.

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.

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.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or at:



<http://water.epa.gov/drink/hotline>.

more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Quality Report

The Town of Chapin and the City of Columbia constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

The following tables list the drinking water contaminants that were detected during the 2019 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 – December 31, 2019. 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 2019.

Town of Chapin

Lead and Copper							
Contaminant	Violation Y/N	MCLG	Action Level (AL)	90 th Percentile	Units	# Sites Over AL	Likely source of Contamination
Copper (2019)	N	0	15	0.032	ppm	0	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (2019)	N	0	15	0	ppb	1	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection and Disinfection By- Products	Violation Y/N	Levels Detecte	MCLG	MCL	Unit	Likely Source of Contamination
Chlorine (2019)	N	1.4 Range 0.6-	MRDL G = 4	MRDL = 4	ppm	Water additive used to control microbes.
Haloacetic Acids (HAA5)(2019)	N	18.0 Range 11.4-	No goal for	60	ppb	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)(2019)	N	24.0 Range 16.77-	No goal for	80	ppb	By-product of drinking water disinfection.
Inorganic Contaminants						
Arsenic (2019)- <i>While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.</i>	N	6.4 Range 0-6.4	0	10	ppb	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

Nitrate (measured as Nitrogen) (2019)	N	Range 0.21-0.63	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Violation Y/N	Levels Detected	MCLG	MCL	Unit	Likely Source of Contamination
Uranium (2015)	N	1.2	0	30	ug/l	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides						
Chlordane (2019)	N	Range 0-0.98	0	2	ppb	Residue of banned termiticide
Di (2-ethylhexyl) phthalate (2019)	N	0.76 Range 0-0.76	0	6	ppb	Discharge from rubber and chemical factories

City of Columbia

Inorganic Contaminants						
Fluoride (2019)	N	0.54	4	4.0	ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (2019)	N	0.41 Range 0-0.41	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium (2019)	N	0.24 Range 0-0.24	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Sodium** Unregulated Contaminant (2019)	N/A	8.0	N/A	N/A	ppm	Naturally Occurring

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

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.

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

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

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 benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not Detected): Not Detected in sample or below detection limits

NTU (Nephelometric Turbidity Unit): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person

pCi/l (Picocuries per liter): The basis for the curie is the radioactivity of one gram of radium. A **picocurie** is one trillionth of a curie.

PDWS (Primary Drinking Water Standard): MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter). This is equivalent to 1 drop in 14,000 gallons (average swimming pool)

ppm (parts per million): One part substance per million parts water (or milligrams per liter). This is equivalent to 3 drops in 42 gallons (large bathtub)

RAA (running annual average)

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