

# **2022 Annual Drinking Water Quality Report**

## **Big Creek Water System (0420009)**

### **April 26, 2023**

We're pleased to present to you this year's Annual Water Quality 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. Our water source is purchased from Anderson Regional Joint Water System (ARJWS) and the Greenville Water System. The ARJWS is supplied by surface water from the U.S. Army Corps of Engineer's Hartwell Lake Reservoir lying along the border of Upstate South Carolina and Georgia. The Greenville Water System, which is a combination of water from the Table Rock Reservoir treated at the Table Rock and North Saluda Filter Plant (DAF), and Lake Keowee treated at the Witty Adkins Water Treatment Plant. If you have any questions about this report or concerning your water utility, please contact Chuck Cortez at Big Creek Water (864) 847-4957.

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. Infants and young children are typically more vulnerable to lead in drinking water than the general population. If you are concerned about elevated lead levels in your home's water, you should flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is 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. Big Creek Water District 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 at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

Big Creek Water routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2022 or the last required monitoring date. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants.

It's important to remember that the presence of these contaminants does not necessarily pose 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.

**We are pleased to report that our drinking water is safe and meets all federal and state requirements.**

Please find below some definition of terms and abbreviations to help you understand the report.

#### Water Quality Test Results Definitions

- **ppm**: Milligrams per liter or parts per million corresponds to 1 ounce in 7,350 gallons of water.
- **ppb**: Micrograms per liter or one part per billion corresponds to 1 ounce in 7,350,000 gallons of water.
- **Action Level (AL)**: the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Action Level Goal (ALG)**: The level of a contaminate in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.
- **Maximum Contaminant Level or MCL**: The "Maximum Allowed" is the highest level of 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 or MCLG**: The "Goal" 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 or MRDLG**: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG'S do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum residual disinfectant level or MRDL**: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminates.
- **N/A**: not applicable
- **Average (Avg)**: -- Regulatory compliance with some MCL's are based on running annual average of monthly samples.
- **Running Annual Average or RAA** – the average of 4 consecutive samples over a period of a year
- **Definitions**: The following tables contain scientific terms and measures, some of which may require explanation

**SC 0420009 Big Creek Water District**

Lead / Copper	MCLG	Action Level	90 <sup>th</sup> Percentile	Number site over AL	Unit of Measure	Violation Y/N	Likely Source of Contamination
Lead (2020)	0	15	0	1	ppb	N	Corrosion of household plumbing. Erosion of natural deposits.
Copper (2020)	1.3	1.3	0.104	0	ppm	N	Corrosion of household plumbing. Leaching from wood preservatives. Erosion of natural deposits.
Disinfectants and Disinfection By-Products	Highest Detected Level	Range of Detection	MCLG	MCL	Unit of Measure	Violation Y/N	Likely Source of Contamination
Chlorine (2022)	1.4	1.4 1.4	MRDLG 4	MRDL 4	ppm	N	Water additive used to control microbes
(HHA5) Haloacetic Acids (2022)	17.0 RAA	8.7 – 22.5	N/A	60	ppb	N	By-product of drinking water disinfection
(TTHM) Total Trihalomethanes (2022)	33.0 RAA	13.9 - 45.7	N/A	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

**SC 0420009 Big Creek Water District**

**Additional Monitoring**

Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard.

Contaminants from UCMR4 Sampled during 2020	Unit of Measure	Average of Result	Range
HAA5	ppb	14.029375	6.81-20.77
HAA6Br	ppb	3.019125	1.437-3.974
HAA9	ppb	17.0485	9.019- 24.23
Manganese	ppb	1.372714286	0.562-2.69

**SC 0420011 Anderson Regional Joint Water System**

Lead / Copper	MCLG	Action Level	90th Percentile	Number site over AL	Unit of Measure	Violation Y/N	Possible Source
Lead (2022)	0	15	2	0	ppb	N	Corrosion of household plumbing. Erosion of natural deposits
Copper (2022)	1.3	1.3	0.035	0	ppm	N	Corrosion of household plumbing. Leaching from wood preservatives. Erosion of natural deposits
Disinfectants and Disinfection By-Products	Results	Range of Detection	MCLG	Highest Level Allowed	Unit of Measure	Violation Y/N	Possible Source

Chlorine (2022)	1.75	1.5-1.9	MRDLG 4	MRDL 4	ppm	N	Water additive used to control microbes
(HHA5) Haloacetic Acids (2022)	26 RAA	6.8-25.7	N/A	60	ppb	N	By-product of drinking water disinfection
(TTHM) Total Trihalomethanes (2022)	18 RAA	7.6-18.3	N/A	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

**SC 0420011 Anderson Regional Joint Water System**

Inorganic Contaminates	Results	Range of Detection	MCLG	MCL	Unit of Measure	Violation Y/N	Possible Source
Fluoride (2022)	0.58	0.58	4	4	ppm	N	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Nitrate (2022)	.14	.14	10	10	ppm	N	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Turbidity (2022)	.30	0.03-0.30	N/A	1	NTU	N	Soil runoff

**Greenville Water System**

Lead / Copper	MCLG	Action Level	90th Percentile	Number site over AL	Unit of Measure	Violation Y/N	Possible Source
Lead (2021)	0	15	0	1	ppb	N	Corrosion of household plumbing. Erosion of natural deposits
Copper (2021)	1.3	1.3	0.088	0	ppm	N	Corrosion of household plumbing. Leaching from wood preservatives. Erosion of natural deposits
Disinfectants and Disinfection By-Products	Average	Range of Detection	MCLG	Highest Level Allowed	Unit of Measure	Violation Y/N	Possible Source
Chloramine Measured as Total Chlorine (2022)	2.3	0.05 - 3.3	MRDLG 4	MRDL 4	ppm	N	Water additive used to control microbes
(HHA5) Haloacetic Acids (2022)	LRAA 12.7	1.3 – 15.3	N/A	60	ppb	N	By-product of drinking water disinfection
(TTHM) Total Trihalomethanes (2022)	LRAA 12.7	8.3-14.4	N/A	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

**Greenville Water System**

Inorganic Contaminates	Highest Detected Level	Range of Detection	MCLG	Highest Level Allowed	Unit of Measure	Violation Y/N	Possible Source
Nitrate/Nitrite measured as nitrogen (2022) Stovall Plant Adkins Plant Distribution system average.	ND 0.06 0.07	N/A N/A 0.02-0.52	10	10	ppm	N N N	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Fluoride (2022) Stovall Plant Adkins Plant Distribution system average	0.7 0.6 0.60	N/A N/A 0.5 -0.8	4	4	ppm	N N N	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.

Turbidity	95% of Samples	100% of Plant Samples are Below MCL	Unit of Measure	Violation Y/N	Possible Source
Stovall Plant Adkins Plant Distribution System	<0.3 <0.3 N/A	Max = 0.06; Avg = 0.04 Max = 0.06; Avg =0.04 Average = 0.15	NTU	N N N/A	Soil runoff

As you can see by the table, our system had no violations. We're 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.

Source Water Assessment and Protection Plans (SWAP) are scheduled to be completed for all public water systems in South Carolina by May 2003. SWAPs, among other things, identify potential sources of contamination to drinking water supplies. The plan for this water system is complete and you can obtain a copy of it at:

<http://www.scdhec.gov/environment/water/srcwtrreports.htm>