

2019 WATER QUALITY REPORT



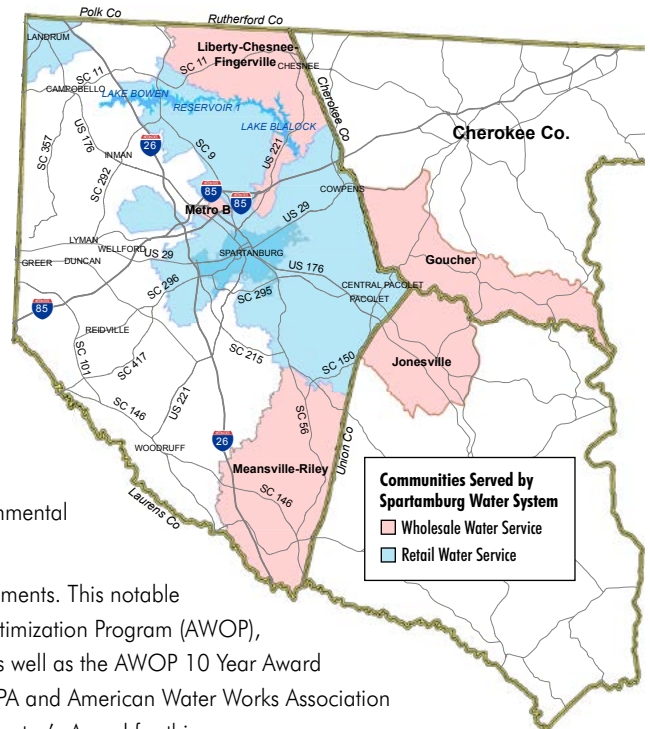
SPARTANBURG WATER ID#4210001

Spartanburg Drinking Water Surpasses All Standards

WE AT SPARTANBURG WATER ARE PLEASED TO PRESENT YOU WITH OUR 2019 WATER QUALITY REPORT. WE ARE PROUD TO ANNOUNCE WE CONTINUE TO MEET AND SURPASS ALL STATE AND FEDERAL WATER QUALITY STANDARDS UNDER THE SAFE DRINKING WATER ACT.

In order to protect you, our valued customer, the United States Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (DHEC) have established strict standards for drinking water. These standards protect consumers from waterborne disease organisms and harmful chemicals. On an annual basis, the EPA requires all public water systems to provide customers with information about water quality and compliance with environmental standards through Water Quality Reports.

Spartanburg Water meets drinking water quality that goes beyond regulatory requirements. This notable performance is due in part to our participation in the South Carolina Area-Wide Optimization Program (AWOP), which focuses on treatment enhancements. R.B. Simms received an AWOP award as well as the AWOP 10 Year Award for achieving the program goals. Spartanburg Water continues to partner with the EPA and American Water Works Association (AWWA) as a member of the Partnership for Safe Water. R.B. Simms received the Director's Award for this program.



Source Water Assessment

The Safe Drinking Water Act Amendments of 1996 required DHEC to perform a source water assessment for all drinking water supplies in South Carolina. This assessment consists of the following key elements: determining the geographic boundaries for each water supply, preparing a list of potential contamination sources within each area and assessing the potential for pollutants to enter the water supply. DHEC has completed the source water assessment for our water system. Potential contaminants identified in the report include volatile organic compounds (VOCs), petroleum products, metals, nitrates, pesticides/herbicides, and pathogens. Potential sources of these contaminants include gas stations, dry cleaners, agricultural areas, automobile repair shops, septic systems, and facilities where potential contaminants are used or stored.

We test our drinking water for more than 150 substances. Most of the results show that contaminants are not present in our drinking water, but there are some exceptions. The tables on the following pages list all the regulated drinking water contaminants that were detected during the 2019 Calendar year, except if otherwise noted. Most samples were taken at the treatment plant at a point just before the water enters our distribution system, but trihalomethanes, haloacetic acids, and lead and copper compliance samples were monitored from customer taps throughout the distribution system. State and federal regulations do not require us to examine the water for all contaminants during each calendar year. The information provided in these tables represents the most recent samples taken in accordance with the applicable regulations.

For more information about the state's source water assessment program or watersheds, visit www.scdhec.gov/environment/your-water-coast/source-water-protection. Please contact David Crosby at 864-598-7277 for more information about our source water assessment.

Where Does Our Water Come from?

Spartanburg Water draws water from three man-made Lakes: Lake William C. Bowen, Municipal Reservoir #1, and Lake H. Taylor Blalock.

Lake Bowen, formed by the South Pacolet River and its tributaries, flows into Municipal Reservoir #1. The entire watershed for these lakes lies in Spartanburg and Eastern Greenville Counties. The R.B. Simms Water Treatment Facility treats the water from these lakes.

The North Pacolet River and its tributaries combine with the Lake Bowen/Reservoir #1 system to form Lake Blalock. The watershed for this lake lies in South Carolina and North Carolina. The Myles W. Whitlock, Jr. Water Treatment Facility treats the water from Lake Blalock.

What's in Our Water?

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. These substances are called "contaminants."

CONTAMINANTS THAT CAN BE PRESENT IN WATER INCLUDE:

- **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 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 runoff and residential use;
- **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 storm water runoff and septic systems;

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

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 (1-800-426-4791). The EPA and DHEC prescribe strict regulations that limit the amount of certain contaminants allowed in tap water to ensure that it is safe to drink. The FDA establishes limit regulations for contaminants present in bottled water and also must provide protection for the public health.

IMPORTANT HEALTH INFORMATION

Certain individuals can be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer and who are undergoing chemotherapy, persons who have undergone organ transplant, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline (1-800-426-4791).

DISINFECTANTS AND DISINFECTION BYPRODUCTS MEASURED IN THE DISTRIBUTION SYSTEM

Substance	MRDLG MCLG	MRDL MCL	Highest Level Found	Range of Levels Found	Date of Sample	Was MRDL or MCL Exceeded?	Typical Source
Chlorine	4 ppm	4 ppm	1.55 ppm	0.30 – 1.55	2019	No	Added for disinfection
Chlorine Dioxide ¹	800 ppb	800 ppb	1430 ppb	ND – 1430	2019	No	Added for disinfection
Chlorite	0.8 ppm	1 ppm	0.76 ppm	ND – 0.76	2019	No	By-product of disinfection
Total Trihalomethanes	0	80 ppb*	LRAA = 55 ppb	16 – 86	2019	No	By-product of disinfection
Total Haloacetic Acids	0	60 ppb*	LRAA = 29 ppb	12 – 32	2019	No	By-product of disinfection

¹Chlorine Dioxide MRDL–MCL was not violated because no two consecutive days were above the MRDLG–MCLG based on SCDHEC State Drinking Water Regulations 61.58 "For chlorine dioxide, a PWS is in compliance with the MRDL when daily samples are taken at the entrance to the distribution system and no two consecutive daily samples exceed the MRDL."

* Compliance for Trihalomethanes and Haloacetic Acids are based on Locational Running Annual Averages (LRAA), not individual sample values. The calculated LRAA may include data from 2018 not reported on this table while range of levels found represents samples collected during 2019 only.

COLIFORM BACTERIA MEASURED IN THE DISTRIBUTION SYSTEM

Contaminant	MCLG	TT	Result	Date of Sample	Was TT exceeded?	Typical Source
Total Coliform	N/A	TT*	No positive E. coli results	2019	No	Naturally present in the environment



Units of Measurement

- **ppm (Parts per Million)**: This is the same as milligrams per liter, or the equivalent of one penny out of ten thousand dollars.
- **ppb (Parts per Billion)**: This is the same as micrograms per liter, or the equivalent of one penny out of ten million dollars.
- **SU (Standard Units)**: Unit of measure to indicate how acidic or basic water is on the pH scale.
- **NTU (Nephelometric Turbidity Units)**: Units of measure to indicate water clarity.

On April 1, 2016 SCDHEC required Public Water Systems to implement the Revised Total Coliform Rule (RTCR).

Under RTCR a Treatment Technique (TT) violation is defined as any of the following:

- E. Coli-positive repeat sample following a total coliform-positive routine sample
- Total coliform-positive repeat sample following an E. coli routine sample
- Failure to take all required repeat samples following an E. coli-positive routine sample
- Failure to test for E. coli when any repeat sample tests positive for total coliform



Lead and Copper

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. Spartanburg Water 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 drinking water, you may want to consider having 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 (1-800-426-4791) or at <http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>.

LEAD AND COPPER MEASURED IN THE DISTRIBUTION SYSTEM (REQUIRED EVERY 3 YEARS)

Contaminant	Action Level (90%)	SWS 2019 (90%)	Number over Action Level	Typical Source
Copper	1.3 ppm	0.163 ppm	0	Corrosion of household plumbing and erosion of natural deposits; Leaching from wood preservatives
Lead	15 ppb	ND	1	Corrosion of household plumbing and erosion of natural deposits

REGULATED SUBSTANCES DETECTED IN SWS FINISHED DRINKING WATER/DISTRIBUTION SYSTEM (SAMPLES TAKEN AT THE R.B. SIMMS TREATMENT PLANT, UNLESS OTHERWISE NOTED)

Substance	MCLG	MCL	Highest Level Found	Range of Levels Found	Date of Sample	Was MCL Exceeded?	Typical Source
Fluoride *	4 ppm	4 ppm	0.68 ppm	NA*	2019	No	Added to prevent tooth decay
Turbidity	NA	TT = 1 NTU	0.11 NTU	0.01 – 0.11	2019	No	Soil runoff
		TT = percentage of samples equal to or below 0.3 NTU	100%	NA			
Nitrate	10 ppm	10 ppm	0.13	NA	2019	No	Naturally occurring and fertilizer runoff
Total Organic Carbon	NA	TT = removal ratio of 1 or greater	Removal Ratio Avg. = 1.15	1.00 – 1.32	2019	No	Naturally occurring

*Only fluoride results from samples taken by DHEC are given in the table. Average Fluoride level detected by SWS's certified laboratory during 2019 was 0.64 ppm for R.B. Simms.

SUBSTANCES MONITORED FOR THE SECONDARY DRINKING WATER STANDARDS (SAMPLES TAKEN AT THE R.B. SIMMS TREATMENT PLANT)

Substance	MCLG	Secondary MCL	Average Level Found	Range of Levels Found	Date of Sample	Was MCL Exceeded?	Typical Source
Aluminum	No M CLG	50 – 200 ppb	22 ppb	9 – 67	2019	No	Naturally occurring
Chloride	No M CLG	250 ppm	11 ppm	9 – 15	2019	No	Naturally occurring
Copper	No MCLG	1000 ppb	ND	ND	2019	No	Naturally occurring
Manganese	No M CLG	50 ppb	ND	ND – 26	2019	No	Naturally occurring
pH	No M CLG	6.5 - 8.5 SU	7.1 SU	6.8 – 7.8	2019	No	Naturally occurring
Sulfate	No M CLG	250 ppm	9.8 ppm	9.5 – 10	2019	No	Naturally occurring
Total Dissolved Solids	No M CLG	500 ppm	47 ppm	28 – 72	2019	No	Naturally occurring
Zinc	No MCLG	5000 ppb	7 ppb	ND – 9.6	2019	No	Added for corrosion control

Unregulated Contaminants

Unregulated contaminants are those that do not have a drinking water standard set by EPA. EPA is required by the Safe Drinking Water Act to identify every five years a list of potential contaminants, make a rule for water systems to test for them, and then make a decision whether regulation is necessary. As part of the Unregulated Contaminant Monitoring Rule 4 (UCMR4), SCDHEC tests Spartanburg Water System for 10 Cyanotoxins and 20 additional contaminants. At this time not all testing has been completed, however as the results are made available it will be shared with our customers within the 2020 Water Quality Report. Seventeen of the contaminants under review were not detected, but three were detected. The Total Organic Carbon as measured within the source water and the Manganese levels measured at the point of entry have been provided in the table below. The average levels measured as well as the range of the levels found are included in this report. If you have any questions about these results or are interested in the full list of contaminants that were monitored, please contact David Crosby at 864-598-7277.

UNREGULATED CONTAMINANTS MONITORING RULE 4 (UCMR4)					
Substance	Sample Location	Highest Level Found	Range of Levels Found	Date of Sample	Typical Source
HAA5	Distribution System	23 ppb	10.4 – 34	2019	By-product of disinfection
HAA6Br	Distribution System	4.4 ppb	2.8 – 5.7	2019	By-product of disinfection
HAA9	Distribution System	27.4 ppb	13 – 39	2019	By-product of disinfection
Manganese	Point of Entry into Distribution System	.253 ppb	ND – 0.760	2019	Naturally Occurring
Total Organic Carbon	Source Water	1.86 ppm	1.67 – 2.01	2019	Naturally Occurring

WATER QUALITY TERMS AND ABBREVIATIONS:

- **AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **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 margin of safety.
- **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 disinfectant in drinking water 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 contamination.
- **LRAA (Locational Running Annual Average):** The average concentration at a particular location for four consecutive quarters.
- **NA (Not Applicable):** Does not apply.
- **ND (Not Detected):** Not detected or below detection limits.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

OUR MISSION is to provide quality water and wastewater services to our region in a reliable manner.

CUSTOMER SERVICE

Please contact the Spartanburg Water Customer Service Department at 864-582-6375 if you have any questions about Spartanburg Water or this report. Learn more about Spartanburg Water by visiting our website at www.spartanburgwater.org.

COMMISSION MEETINGS

The Commissioners of Public Works of the City of Spartanburg, SC, meet regularly throughout the year. The meetings are held at: Spartanburg Water Main Office, 200 Commerce Street, Spartanburg, SC 29306. For more information and a meeting schedule, please contact Trish Heatherington at 864-580-5643.

OTHER SOURCES OF INFORMATION ON DRINKING WATER

EPA Safe Drinking Water Hotline

1-800-426-4791 www.epa.gov/your-drinking-water/safe-drinking-water-hotline

National Sanitation Foundation

1-800-673-6275 www.nsf.org/consumer/drinking_water/dw_quality

SCDHEC

www.scdhec.gov/environment/your-home/drinking-water

ESTE INFORME CONTIENE INFORMACION ACERCA DEL AGUA POTABLE.

Si usted desea recibir una copia de este informe en idioma español, comuníquese con Atención al Cliente at 1-864-582-6375.

SPARTANBURG WATER

P.O. Box 251, Spartanburg, SC 29304

