2020 Annual Drinking Water Quality Report

This report includes data collected from January 1 to December 31, 2019

Commissioners of Public Works
*** P.O. Box 549 * Greenwood, SC 29648**

Este informe contiene información muy importante sobre la calidad de su agua que beber. Tradúzcalo ó hable con alguien que lo entienda bien.

GREENWOOD CPW DRINKING WATER SURPASSES ALL STANDARDS

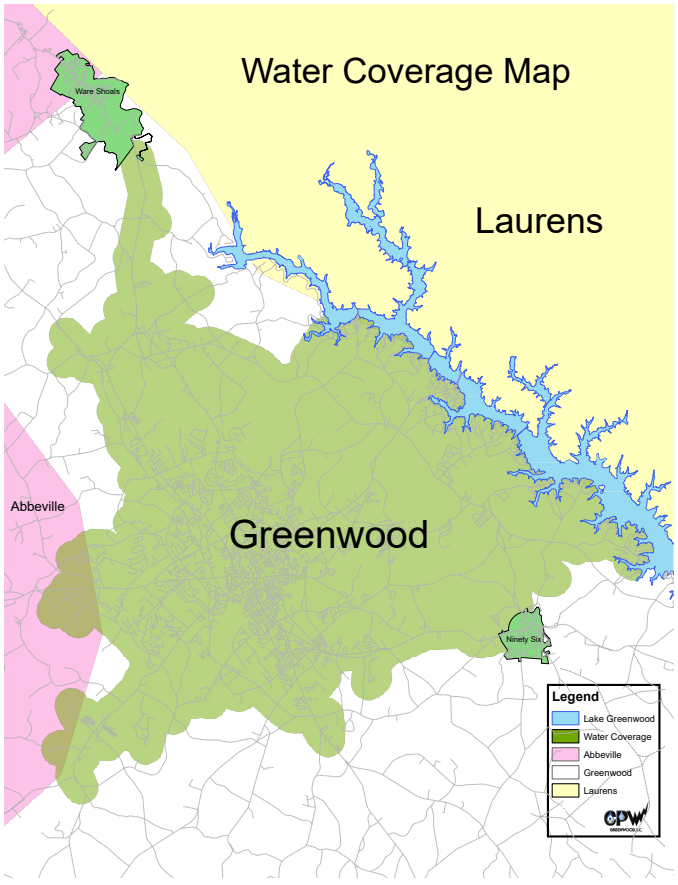
Greenwood CPW is pleased to present our 2020 Annual Drinking Water Quality Report. We are proud to announce that our water continues to meet and surpass all state and federal water quality standards under the Safe Drinking Water Act."

This report is designed to provide you with information concerning the water quality we deliver to you every day. 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.

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. Greenwood CPW meets standards significantly higher than current regulations. This notable performance is due in part to our participation in the South Carolina Area Wide Optimization Program (AWOP). The W.R. Wise Water Treatment Plant was recognized by DHEC for achieving the AWOP goals. Greenwood CPW continues to partner with EPA and the American Water Works Association (AWWA) as a member of the Partnership for Safe Water. The W.R. Wise Water Treatment Plant has received both the Director's Award and the Excellence in Water Treatment Award for this program annually since 2001 and 2006, respectively. Greenwood CPW is the only water supplier in South Carolina to have achieved the Excellence in Water Treatment Award.

Where does your water come from?

Our water source is **Lake Greenwood**, which is located in the Saluda River Basin of South Carolina. The W.R. Wise Water Treatment Plant is located on Lake Greenwood at 202 Water Plant Road, off Puckett's Ferry Road. The South Carolina Department of Health and Environmental Control prepared the source water assessment plan for our water source. This plan is available for your review at the W.R. Wise Water Treatment Plant. Please call the water treatment plant superintendent at 864-953-2411 to make arrangements to review this document.



Source Water Assessment Summary

This report contains the completed source water susceptibility assessment for Greenwood CPW, System No. 2410001. The system includes public supply intakes S24101. The system is located in Greenwood County and serves a primary population of 55,525. The system is located in the Saluda-Edisto basin. Of the 781 potential contamination sources (PCS) in this initial inventory, 506 PCS had more than one category of contaminants. The inventory includes volatile organic compounds (VOC), petroleum products, metals, nitrates, pesticides/herbicides, pathogens, and radio nuclides. Potential sources of these contaminants include gas stations, dry cleaners, agricultural areas, automobile repair shops, septic systems, and facilities where potential contaminants are stored. For more information about the state's source water assessment program and about watersheds visit www.scdhec.gov/HomeAndEnvironment/Water/SourceWaterProtection.

How is your water treated?

The conventional water treatment process (disinfection, coagulation, flocculation, sedimentation and filtration) contains many barriers to safeguard our customers from the transmission of water borne diseases, which were very prevalent in our nation just a little over 100 years ago. Our treatment facility has an approved treatment maximum capacity of 33 million gallons of water per day. The water from Lake Greenwood is pumped from the lake via two raw water intakes located in the lake. Powdered activated carbon is added seasonally for taste & odor control. Several disinfectants, free chlorine, chlorine dioxide and chloramines are added throughout the treatment process for pathogen inactivation and oxidation of trace metals with minimum disinfection byproduct formation.

Alum is added to remove the turbidity (particles) from the water and **lime & carbon dioxide** is added for pH control. The water is then allowed to settle through the sedimentation basins. The settled water is filtered through conventional dual media filter beds made up of anthracite coal and sand to remove most of the remaining particles. After filtration, additional chlorine is added along with ammonia to form chloramines as the final disinfectant for the distribution system. Lime is added for final pH **and corrosion control.**

How is your water tested?

The Greenwood CPW routinely monitors for more than 150 substances in our drinking water according to federal and state laws in our state certified laboratories. Most of the results show that contaminants are not present in our drinking water, but there are some exceptions. The tables below show the results of our monitoring for regulated drinking water contaminants that were detected during the 2019 calendar year, with exceptions noted. Most samples were taken at the water treatment plant at a point just before the water enters our distribution system, but trihalomethanes, haloacetic acids, total & fecal coliform, 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.

Where do contaminants come from?

As water travels over the land or through the ground, it can pick up substances and end up in our lakes and rivers. These substances or "contaminants" include microbes, such as viruses and bacteria, inorganic chemicals, such as metals and salts, organic chemicals, which can be synthetic or volatile, radioactive substances, which are naturally occurring, and pesticides and herbicides from agricultural activities. 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. In order to ensure that tap water is safe to drink, EPA and DHEC prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which should provide the same protection for public health.

Important 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 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).

What do the Tables Mean?

As you will see in the following tables, 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 substances have been detected. The EPA has determined that your water IS SAFE at these levels.

REGULATED SUBSTANCES DETECTED IN GREENWOOD CPW FINISHED DRINKING WATER/DISTRIBUTION SYSTEM

(Samples collected and analyzed at the W.R. Wise Water Treatment Plant unless otherwise stated)

Substance	Unit	MCL	MCLG	Range of Levels	Highest Level Detected	Typical Sources	VIOLATION
*Nitrate (DHEC)	ppm	10	10	NA	0.057	Naturally occurring and fertilizer runoff	NO
**Turbidity	NTU	TT = 1	NA	100%	0.09	Soil runoff	NO
		TT = Percent of samples less than 0.3	NA	0.02 - 0.09	0.09		
+Total Organic Carbon	ppm	TT = removal ratio of 1.0 (35%) or greater	NA	0.84 - 1.47	Removal Ratio 1.30 (37.9%)	Occurs naturally in the environment	NO
Radiologicals (gross alpha) (DHEC 2018)	pCi/L	15	Zero	NA	2.48	Erosion of natural deposits	NO
Radiologicals (gross beta) (DHEC 2018)	pCi/L	50	Zero	NA	4.64	Erosion of natural deposits	NO
Radiologicals Combined Radium (DHEC 2018)	pCi/L	5	Zero	NA	0.647	Erosion of natural deposits	NO

***Nitrates** - physicians and health care providers in the area will be notified if there is ever a higher than normal level of nitrates in the water supply.

****Turbidity** measurements reported above are based on individual filter effluents and the combined filter effluent prior to post chemical additions. Turbidity compliance is based on a treatment technique (TT) of removing turbidity to levels below 0.30 NTU in 95% of samples collected. Turbidity is the measurement of clarity in the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

+**Total Organic Carbon** (TOC) compliance is based on a treatment technique (TT) of removing total organic carbon from the source water to a level greater than a removal ratio of 1.0 (35%).

DISINFECTANTS AND DISINFECTION BYPRODUCTS MEASURED IN THE DISTRIBUTION SYSTEM

Parameter	Unit	MRDL MCL	MRDLG MCLG	Range	Highest Average	Typical Sources	Violation
Chloramines (DS)	ppm	4	4	1.90 - 3.28	3.23 Qtrly.	Added for disinfection	NO
Chlorite (DS)	ppm	1	0.8	0.23 - 0.51	0.41 Qtrly.	By-product of disinfection	NO
Chlorine Dioxide (POE)	ppm	0.8	0.8	ND - 0.29	0.02	Added for disinfection	NO
Total Trihalomethanes	ppb	80	No Goal for Total	10 - 17	18 LRAA	By-product of disinfection	NO
Total Haloacetic Acids	ppb	60	No Goal for Total	10 - 23	24 LRAA	By-product of disinfection	NO

POE = Point of Entry into the distribution system.
DS = Distribution System.

COLIFORM BACTERIA MEASURED IN THE DISTRIBUTION SYSTEM

Substance	MCLG	MCL	Results	Typical Sources	Violation
Total Coliform	NA	TT	No positive E. coli	Occurs naturally in the environment	NO

Total 936 samples collected from the distribution system in 2019 were negative for E. coli bacteria. Results based on treatment technique (TT) under the Revised Total Coliform Rule (RTCR) April 1, 2016.

LEAD AND COPPER MEASURED IN THE DISTRIBUTION SYSTEM

Substance	Sample Year	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Typical Sources	Violation
Lead	2017	0 ppb	15 ppb	2.5 ppb	1	Erosion of natural deposits; corrosion of household plumbing; leaching from wood preservatives	NO
Copper	2017	1.3 ppm	1.3 ppm	0.15 ppm	0	Corrosion of household plumbing and erosion of natural deposits	NO

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. Greenwood CPW 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 http://www.epa.gov/safewater/lead

OTHER SUBSTANCES MONITORED IN DRINKING WATER

Substance	Secondary MCL	Average Value	Range of Levels	Unit	Typical Sources	Violation
pH	6.5 - 8.5 SU	8.7	8.5 - 8.9	SU	Naturally Occurring; adjusted In finished water for corrosion control	NO
Ca-Hardness	NA	35	25 - 43	ppm	Naturally Occurring	NO
Alkalinity	NA	28	13 - 39	ppm	Naturally Occurring	NO
Sodium (DHEC)	NA	13	NA	ppm	Naturally Occurring	NO
Iron	300	7	0 - 12	ppb	Naturally Occurring	NO
Manganese	50	5	0 - 9	ppb	Naturally Occurring	NO

UNITS OF MEASUREMENT

ppm = (parts per million); this is the same as milligrams per liter (mg/L), or the equivalent of one penny out of ten thousand dollars.
ppb = (parts per billion): this is the same as micrograms per liter (ug/L), or the equivalent of one penny out of ten million dollars.
ppt = (parts per trillion): this is the same as nanograms per liter (ng/L), or the equivalent of one penny out of ten billion dollars.
NTU = (Nephelometric Turbidity Units): Units of measure to indicate clarity of water
SU = (Standard Units): Unit of measure to indicate how acidic or basic water is on the pH scale.

UNREGULATED CONTAMINANTS MONITORING (UCMR4)

Unregulated contaminants are those that do not 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 2019	Average Result	Range
HAA6Br (ug/L)	2.3	2.2 - 2.4
HAA9 (ug/L)	14.1	12 - 18
HAA5 (ug/L)	12.0	9.6 - 15.4
Manganese (ug/L)	1.3	1.3 - 1.3

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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

Who do you call for questions?

If you have any questions about this report or concerning your water quality, please contact the superintendent of the W.R. Wise Water Treatment Plant and Laboratory at 864-953-2411.

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Thursday of each month at 10:00 a.m. at CPW main office, 121 Court Ave., Greenwood, SC 29646

Call CPW Customer Service at 864-942-8100 if you have any questions about rates and your water service connection.

Feel free to call for a tour of the **W.R. Wise Water Treatment Plant** at 202 Water Plant Road. With advanced notice, we welcome school and civic groups to tour the plant Monday – Friday, except holidays, 9:00 a.m. to 3:00 p.m., weather permitting. Call the water treatment plant superintendent at 864-953-2411 for appointments.