

# Lake Wylie Area Water System

PWS ID: SC4650006



blue granite  
water company<sup>SM</sup>

## Annual Water Quality Report 2021

### Message from Don Denton, President

Dear Blue Granite Water Company Customers,

I am pleased to present your Annual Water Quality Report for 2021. Transparency, health, and safety are key priorities in our company's efforts to provide a high-quality, reliable water supply. Included in this report are details about where your water comes from, what it contains, and how it compares to regulatory standards.

**We are proud to share this report which is based on water quality testing through December 2021. We continually strive to supply water that meets and/or exceeds all federal and state water quality regulations.**

Our team is comprised of proud members of the community who are dedicated to providing safe, reliable and cost-effective service to you. This commitment includes acting with integrity, protecting the environment, and enhancing the local community.

Maintaining a safe and reliable water supply is hard work. Our devoted local team of water quality experts are working in the community every day, ensuring that our customers are our top priority, and providing the highest quality drinking water and service – now and well into the future.

Best regards,

Visit us online at [www.bluegranitewaterco.com](http://www.bluegranitewaterco.com) Or



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### COVID-19 Response

According to the Centers for Disease Control and Prevention (CDC) and the US Environmental Protection Agency (EPA), the virus that causes COVID-19 has not been detected in drinking water. Conventional water treatment methods that use disinfection, such as those provided by Blue Granite Water Company, should remove or inactivate the virus that causes COVID-19 as they do for other pathogens.

**Based on current evidence, the risk to water supplies remains low. Customers can continue using and drinking tap water as usual.** The EPA also encourages the public to help keep household plumbing and our nation's water infrastructure operating properly by only flushing toilet paper. Disinfecting or other sanitary wipes, including those labeled as "flushable" and other non-toilet paper items, should NOT be flushed in toilets.

For more information, visit the CDC at <https://www.cdc.gov/coronavirus/2019-ncov/php/water.html> and EPA at <https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater>.

### Source of Drinking Water

Our water source is purchase water from York County, which purchases water from the City of Rock Hill. Rock Hill draws surface water from Lake Wylie. This system also purchases water from Charlotte Water as of October 2019.

### Source Water Assessment

The South Carolina Department of Health & Environmental Control (DHEC) has completed the Source Water Assessment Plan (SWAP) for the City of Rock Hill and Charlotte Water. The relative susceptibility rating of each source was ranked as having high, moderate, and/or low susceptibility. The rating is determined by identifying potential pollution sources near each water source location. It is important to understand that a susceptibility rate of "high" does not imply poor water quality, only the systems' potential to become contaminated by potential pollution sources in the assessment area. The Source Water Assessment Plan can be made available by providing the system ID # found at the top of this report to Mr. Richard Welch at (803) 898-3546 or e-mail at [welchra@dhec.sc.gov](mailto:welchra@dhec.sc.gov).

### Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

- ⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.
- ⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!
- ⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

***We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.***

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

## EPA Wants You To Know

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.

**Contaminants that may be present in source water include:**

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **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 stormwater runoff, and septic systems.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

## What measures are in place to ensure water is safe to drink?

In order to ensure that tap water is safe to drink, the EPA prescribes 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 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 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.

## Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems

**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 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).**

## Information Concerning Lead in 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. Blue Granite Water Company 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 at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

## Drain Disposal Information

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

## Prescription Medication and Hazardous Waste

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: [www.epa.gov/hw/household-hazardous-waste-hhw](http://www.epa.gov/hw/household-hazardous-waste-hhw).

## If You Have Questions Or Want To Get Involved

Blue Granite Water Company holds eight regional public meetings a year. Stay tuned for dates, times and location of the meetings. Please contact our Customer Service Department at (800) 367-4314 should you have any questions.

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

**Understanding This Report** In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

Action level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
EPA	Environmental Protection Agency.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL)	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.
Maximum Residual Disinfectant Level Goal (MRDLG)	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.
Millirems per year (mrem/yr)	A measure of radiation absorbed by the body.
Nephelometric Turbidity Units (NTU)	A measure of water clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.
Not applicable (N/A)	Not applicable.
Not Detected (ND)	Analysis or test results indicate the constituent is not detectable at minimum reporting limit.
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 (ug/l)	One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
Picocuries per liter (pCi/L)	A measure of radioactivity in the water.
Running Annual Average (RAA)	Calculated running annual average of all contaminant levels detected.

**Monitoring Your Water:** We routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables below lists all the drinking water contaminants that were detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in the table is from testing done January 1 through December 31, 2021.** The EPA or the State requires us 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, maybe more than one year old.

**Violations:** In 2021, Blue Granite Water Company performed all required monitoring for contaminants and did not exceed any allowable levels of these contaminants. In addition, we received **no violations** from SC DHEC and was in compliance with applicable testing and reporting requirements.

### Water Quality Test Results

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding AL	Unit of Measure -ment	MCLG	MCL	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Copper (90th percentile)	N	2021	0.022	0	ppm	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (90th percentile)	N	2021	6.00	1	ppb	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
<i>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.</i>								
<b>Disinfectants and Disinfection By-Products</b>								
Chlorine	N	2021	RAA= 1.31	1.19-1.46	ppm	MRDLG =4	MRDL= 4	Water additive used to control microbes.
Haloacetic Acids (HAA5)	N	2021	22.0	11.3-23.7	ppb	No goal for total	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	N	2021	47.0	19.2-80.3	ppb	No goal for total	80	By-product of drinking water disinfection
<i>Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.</i>								
<b>Radioactive Material</b>								
Gross alpha excluding radon and uranium	N	2019	6.81	ND- 6.81	pCi/L	0	15	Erosion of natural deposits



## PFAS Testing

Blue Granite Water Company continues efforts to conduct statewide drinking water testing for Per- and Polyfluoroalkyl Substances (PFAS). These man-made compounds are used in the manufacturing of products resistant to water, grease or stains including firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS can migrate into the soil, water, and air and is likely present in the blood of humans and animals all over the world. The Environmental Protection Agency (EPA) has established a health advisory level at 70 parts per trillion. **For the latest PFAS results, visit our website at [www.bluegranitewaterco.com](http://www.bluegranitewaterco.com) and click Water Quality Reports.** For more information visit <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>. Blue Granite Water Company is committed to providing safe, reliable, and cost-effective drinking water services to all our customers.

## City of Rock Hill Water Quality Test Results

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
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### Inorganic Contaminants

Fluoride	N	2021	0.60	0.61-0.61	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Nitrate (as Nitrogen)	N	2021	0.49	0.49-0.49	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

### Radioactive Contaminates

Beta/Photon Emitters	N	2021	4.88	ND-4.88	mrem/yr	0	4	Decay of natural and man-made deposits
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*Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.*

## 2021 Water Quality Test Results Charlotte Water

If you have questions about the following water quality data, please contact Charlotte Water at 704-336-7600. More information is available at: <https://charlottenc.gov/Water/WaterQuality/Pages/WaterQuality.aspx>

### Turbidity\*

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Franklin: Level Detected	Vest: Level Detected	Lee Dukes: Level Detected	Treatment Technique (TT) Violation if:	Likely Source
Turbidity (NTU) – Highest single turbidity measurement	N	0.264	Offline	0.0.312	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) – Lowest monthly percentage (%) of samples meeting turbidity limits	N	100%	Offline	100%	Less than 95% of monthly turbidity measurements are ≤0.3 NTU	Soil runoff

*\*Turbidity is a measure of the cloudiness of the water. Charlotte Water monitors it because it is a good indicator of the effectiveness of the filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.*

### Inorganic Contaminants

Contaminant (units)	MCL Violation Y/N	Franklin: Level Detected	Vest: Level Detected	Lee Dukes: Level Detected	MCLG	MCL	Likely Source
Fluoride (mg/L)	N	0.95 Range:0–0.95	Offline	0.78 Range:0.07-0.78	4	4	Erosion of natural deposits; water additive that promotes strong teeth

### Total Organic Carbon (TOC)

Contaminant (units)	MCL Violation Y/N	Franklin: Level Detected	Vest: Level Detected	Lee Dukes: Level Detected	Compliance Criteria	TT	Compliance Method	Likely Source
Total Organic Carbon (ppm) (Removal Ratio)	N	Average: 1.03 Range: 0.38-1.33	Offline	Average: 1.34 Range: 0.95-1.57	Treated Water <2.0	TT	ACC#2	Naturally present in the environment

**Cryptosporidium** - Charlotte Water monitors quarterly for Cryptosporidium and Giardia. There were zero detects for 2019. *Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Charlotte Water's monitoring indicates the presence of these organisms in the source water and/or finished water. Current test methods do not allow Charlotte Water to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

**Unregulated Contaminants** - EPA required testing for the Unregulated Contaminants Monitoring Rule (UCMR4). Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of the unregulated contaminant monitoring rule is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. For more information please visit <https://www.epa.gov/dwucmr>.

Contaminant (units)	Year Sampled	Sample Location	Your Water (highest result)	Range Low - High
Bromide (ppb)	2018	Raw Water	40.8	23.2 - 40.8
Total Organic Carbon (ppm)	2018	Raw Water	1.87	1.62 - 1.87
Manganese (ppb)	2018	Entry Point to Distribution System	121.0	0.59 - 121.0
Bromochloroacetic Acid (ppb)	2018	Distribution System	4.93	2.53 - 4.93
Bromodichloroacetic Acid (ppb)	2018	Distribution System	3.31	1.42 - 3.31
Chlorodibromoacetic Acid (ppb)	2018	Distribution System	1.34	0.35 - 1.34

### Additional Monitoring of Other Contaminants

In addition to participating in the EPA's Unregulated Contaminant Monitoring Rule, Charlotte Water has been working with an outside certified laboratory to analyze drinking water samples for over 740 unregulated contaminants. Five rounds of additional, non-required sampling were conducted between September 2018 and October 2019. The first two testing rounds were full rounds of over 740 contaminants. During the next three testing rounds, only groups of contaminants that had one or more of those contaminants detected were tested. The finished water at Franklin and Lee Dukes Water Treatment plants was tested.

**These tables reflect results only when a contaminant is detected.** A full list of all the non-detected contaminants can be found on the website at [charlottewater.org](http://charlottewater.org). For those contaminants that were detected, Charlotte Water will continue to monitor them for any changes in concentration.

The following tables show the results for trace detects of contaminants with current MCL's (Table 1) and contaminants that are not currently regulated (Table 2). Please note that the detects are extremely small, measured in parts per billion (ppb) and even some in parts per trillion (ppt).

**Table 1 - Regulated Contaminants** - The following contaminants are currently regulated by the EPA and therefore, have MCLs. However, current EPA approved analytical methods for the contaminants listed below, do not have detection levels as low as those offered by Charlotte Water's outside lab. Therefore, these contaminants are considered non-detected by EPA and do not show up on the regular annual reports.

Contaminant (units)	Result (highest)	MCL	EPA Health Advisory (DWEL)
2,4-D (ppt)	61	70,000	200,000
Atrazine (ppt)	8	3,000	700,000
Manganese (ppb)	2	50*	1,600
Simazine (ppt)	10	4,000	700,000

#### Definitions from EPA 2018 Edition of the Drinking Water Standards and Health Advisories Tables:

**MCL:** Maximum Contaminant Level

**Health Advisory (HA):** An estimate of acceptable drinking water levels for a chemical substance based on health effects information; an HA is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State, and local officials.

**DWEL:** Drinking Water Equivalent Level. A DWEL is a drinking water lifetime exposure level, assuming 100% exposure from that medium, at which adverse, noncarcinogenic health effects would not be expected to occur.

\* Secondary DW Regulation: Non-enforceable guidelines. Contaminants may cause aesthetic effects in DW.

**Table 2—Contaminants Not Regulated by EPA:**

Contaminant (units)	Result (highest)	EPA Health Advisory (DWEL unless otherwise noted)	Contaminant (units)	Result (highest)	EPA Health Advisory (DWEL unless otherwise noted)
1,1,1-Trichloro-2-propanone (ppb)	0.6		Perchlorate (ppb)	0.06	25 <sup>3</sup>
Acesulfame-K (ppt)	47		Perfluoropentanoic acid (PFPeA) (ppt)	1.7	
Albuterol (ppt)	47		Salicylic Acid (ppt)	470	
Boron (ppb)	28	7,000 <sup>1</sup>	Strontium (ppb)	34	20,000 <sup>1</sup>
Bromochloroacetonitrile (ppb)	0.8		Sucralose (ppt)	820	
Chromium, Hexavalent (ppb)	0.1				
Desethylatrazine (DEA) (ppt)	37				
Diaminochlorotriazine (DACT) (ppt)	21				
Dichloroacetonitrile (ppb)	1.1				
Iohexal (ppt)	23				

#### Definitions from EPA 2018 Edition of the Drinking Water Standards and Health Advisories Tables:

**Health Advisory (HA):** An estimate of acceptable drinking water levels for a chemical substance based on health effects information; an HA is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State, and local officials.

<sup>1</sup> DWEL: Drinking Water Equivalent Level. A DWEL is a drinking water lifetime exposure level, assuming 100% exposure from that medium, at which adverse, noncarcinogenic health effects would not be expected to occur

<sup>2</sup> Cancer Group: A qualitative weight-of-evidence judgment as to the likelihood that a chemical may be a carcinogen for humans. Sufficient evidence in animals and inadequate or no evidence in humans.

<sup>3</sup> Subchronic value for pregnant women.

<sup>4</sup> Lifetime HA: The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure, incorporating a drinking water RSC factor of contaminant-specific data or a default of 20% of total exposure from all sources. The Lifetime HA is based on exposure of a 70-kg adult consuming 2 liters of water per day. For Lifetime HAs developed for drinking water contaminants before the Lifetime HA policy change to develop Lifetime HAs for all drinking water contaminants regardless of carcinogenicity status in this DWSHA update, the Lifetime HA for Group C carcinogens, as indicated by the 1986 Cancer Guidelines, includes an uncertainty adjustment factor of 10 for possible carcinogenicity.

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