Columbia Water
Drinking Water • Wastewater • Stormwater

Este informe contiene información muy importante sobre el agua que usted toma. Para obtener una versión de este documento en español, visite **www.colaccr-esp.com**.

CITY OF COLUMBIA 2019 WATER QUALITY REPORT

PUBLIC WATER SYSTEM 4010001 • COLUMBIA, SC • COLUMBIA WATER

The Customer Meter Upgrade Project is Rolling Along!

Columbia Water's new advanced meter upgrade project hit a milestone when it surpassed 40,000 new meter installations in May 2020. More than 150,000 meters will be installed in multiple stages over the next three years. This project will provide customers with fewer estimated bills, real-time alerts about possible leaks, and the ability to better manage water use.

If you don't have a new meter yet, you can visit **gis.columbiasc.gov/ami/** to see if your house or business is on the upcoming schedule. If it hasn't been scheduled yet, please check back at a later time.

If you have a new meter, please download our Eye on Water app that allows you to track you water usage in real time and set up leak notifications. Go to **columbiascwater.eyeonwater.com/signin** for more details.

Columbia Water Addresses Taste and Odor Concerns Caused by MIB/Geosmin

In the summer and early fall of 2019, Lake Murray experienced an unprecedented algal bloom resulting in much-higher-than-normal levels of the compounds geosmin and methylisoborneal (MIB). The compounds produce an earthy taste and odor that, although not a health concern, can sometimes be difficult to eliminate in drinking water.

Since then, Columbia Water has taken steps to deal with the issue head-on. This includes modifying the carbon feed system piping at the Lake Murray Treatment Plant to accommodate simultaneous feeds at multiple injection points. Carbon is effective in treating taste and odor concerns, and multiple injections points will allow plant operators to more effectively add it to the treatment process.

Operating staff are also performing daily threshold odor tests to attempt to detect unusual scents at various treatment stages in the plant. If any unpleasant odors are detected in the filtered or finished water, the carbon dosage can be changed quickly to remove additional by-products that may be entering the plant.

First Clearwell at Canal Plant Completed

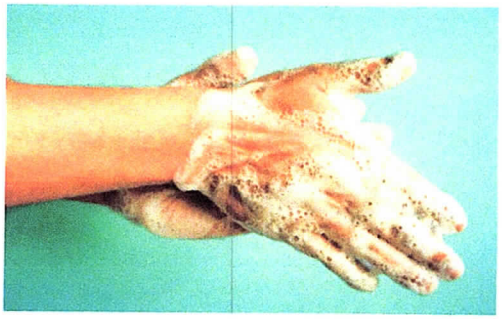
Columbia Water's Canal Plant has been undergoing the construction of two new finished water storage tanks, commonly called clearwell tanks. The first of the two was completed in late 2019 and was put into service in 2020. The clearwell tanks will each hold five million gallons of water, enough to fill nearly eight Olympic-sized swimming pools. The total construction cost of the project is $44.4 million. The second clearwell is projected to be complete late 2020/early 2021.

Columbia Water is on Instagram!

In spring of 2019, Columbia Water launched its Instagram page, adding yet another social media channel to provide information to our customers. Columbia Water now can be found on Instagram, Facebook and Twitter – we are **ColumbiaSCWater** on all three!

COVID-19 Response

The safety of your drinking water is our number one priority. Customers can be assured that our water is safe to drink. Our standard disinfection and treatment practices are very effective for inactivation and removal of viruses, including COVID-19. For more information, visit our website at **www.columbiascwater.net/covid19**. For regular updates on COVID-19, visit the SCDHEC website at **www.scdhec.gov/COVID19**.



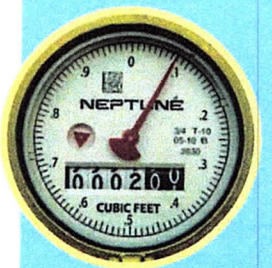
For additional information:

City of Columbia Water Quality Complaints, Billing, & Customer Care Center
803-545-3300
customercare@columbiasc.gov
columbiascwater.net/customer-care

SC DHEC - Bureau of Water
803-898-4300

National Lead Information Clearinghouse
800-424-LEAD

Consumer Product Safety Commission
800-638-2772



Your water meter should be located in your front or side yard along the public right-of-way. It can be used to help you find leaks! **Have you located yours?**

What is in Columbia's Drinking Water?

The City of Columbia's drinking water met all state and federal requirements during 2019. The City's SC DHEC-certified laboratory performs more than 200,000 analyses each year to ensure that the water the City supplies to its customers meets all US EPA and SC DHEC standards. Additional analyses are performed by SC DHEC, the state agency that regulates and oversees public water systems. Samples are tested at every stage of the treatment process and at hundreds of points throughout more than 2,400 miles of pipeline that make up the City's distribution system. The source of Columbia's drinking water is surface water taken from the Broad River (via the Columbia Canal) and Lake Murray.

Substance	Highest Level Allowed (MCL)	Detected Level	Range of Detection	Goal (MCLG)	Violated	Year Sampled	Source of Contaminant
INORGANIC COMPOUNDS							
Lead	15 ppb (Action Level)	3.8 ppb (90th%) 0-15 ppb (range)	None of the 50 sites sampled exceeded the action level	0	None	2017	Corrosion of household plumbing systems & naturally occurring in the environment (1)
Copper	1.3 ppm (Action Level)	0.096 ppm (90th%) 0-0.45 ppb (range)	No sites exceeded the action level	1.3	None	2017	Corrosion of household plumbing systems & naturally occurring in the environment
Fluoride	4 ppm	0.54 ppm	0.51-0.54 ppm	4 ppm	None	2019	Naturally occurring in the environment by erosion of natural deposits and added at the treatment plants as an aid in preventing tooth decay
Nitrate/Nitrite (as Nitrogen)	10 ppm	0.41 ppm	0.00-0.41 ppm	10 ppm	None	2019	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Chlorite (Lake Plant)	1 ppm	0.476 ppm	0.000-0.476 ppm	0.8 ppm	None	2019	By-product of drinking water disinfection
Chlorite (CanalPlant)	1 ppm	0.675 ppm	0.066-0.675 ppm	0.8 ppm	None	2019	By-product of drinking water disinfection
Barium	2 ppm	0.24 ppm	0.00-0.24 ppm	2 ppm	None	2019	Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits
ORGANIC COMPOUNDS							
Total Trihalomethanes (THMs)	80 ppb (LRAA - Locational Running Annual Average)	28 ppb (LRAA)	14.6-36.2 ppb	0	None	2019	By-product of drinking water chlorination; formed when chlorine reacts with organic matter
Haloacetic Acids (HAAs)	60 ppb (LRAA)	34 ppb (LRAA)	10.6-36.2 ppb	0	None	2019	By-product of drinking water chlorination; formed when chlorine reacts with organic matter
Total Organic Carbon (TOC)	TT (35% or 45% removal, depending on source water TOC)	The TT requirement for TOC requires the running annual average of the TOC removal percentage achieved to be at least as great as the TOC removal percentage required. Compliance is judged quarterly, and the City met the requirement for all four quarters in 2019.		N/A	None	2019	Naturally present in the environment
MICROORGANISMS							
Turbidity (Lake Plant)	<0.3 NTU TT	0.07 NTU - Highest single measurement 100%-Lowest monthly percentage meeting standard		N/A	None	2019	Naturally occurring in the environment
Turbidity (Canal Plant)	<0.3 NTU TT	0.09 NTU - Highest single measurement 100%-Lowest monthly percentage meeting standard		N/A	None	2019	Naturally occurring in the environment
Total Coliform Bacteria	Presence of coliform bacteria in <5% of monthly samples	3.0% (Highest monthly percentage positive)	0.0-3%	0	None	2019	Naturally occurring in the environment
DISINFECTANTS							
Chloramine (ppm)	4 ppm	2.2 ppm (Highest quarterly average)	1.8-2.5 ppm	4 ppm (MRDLG)	None	2019	Water additive to control microbial growth
Chlorine Dioxide (ppb) (Lake Plant)	800 ppb (MRDL)	238 ppb	0-238 ppb	800 ppb (MRDLG)	None	2019	Water additive to control microbial growth
Chlorine Dioxide (ppb) (Canal Plant)	800 ppb (MRDL)	666 ppb	0-666 ppb	800 ppb (MRDLG)	None	2019	Water additive to control microbial growth

(1) If present, elevated levels of lead can cause serious health problems, especially for pregnant women, young children, and infants who drink formula made with tap water. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Columbia 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 in your pipes 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 at **800-426-4791** or online at **www.epa.gov/safewater/lead**. City of Columbia water customers can call **803-545-3300** to find out about free lead testing.

DEFINITIONS OF TERMS IN TABLE

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Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow.

Detected Level – The concentration of a substance detected in a water sample. The detected levels specified in the table are the highest levels detected.

LRAA (Locational Running Annual Average) – An average at each sample point for four quarters.

MCL (Maximum Contaminant Level) – The highest level of a contaminant allowed in drinking water.

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.

MRDLG (Maximum Residual Disinfectant Level Goal) - The level of a drinking water disinfectant below which there is no known or expected risk to health.

N/A (Not Applicable) – Does not apply.

NTU (Nephelometric Turbidity Unit) – Units of measure to indicate water clarity.

ppb (parts per billion) – One part in a billion parts (equivalent to one penny in $10,000,000).

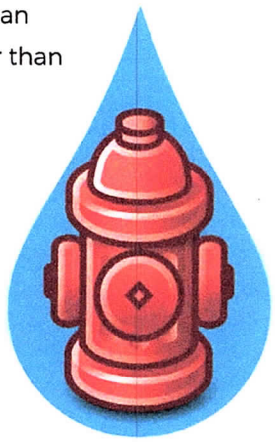
ppm (parts per million) – One part in a million parts (equivalent to one penny in $10,000).

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

90th% (90th Percentile) – The value for which 90% of the results are lower.

< Less than

> Greater than



INFORMATION ABOUT YOUR DRINKING WATER

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 **US EPA's Safe Drinking Water Hotline (800-426-4791)**.

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 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:

- 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 stormwater 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, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the US EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Columbia Water regularly flushes fire hydrants to keep water moving through the system and to improve water quality. Want to receive boil water alerts and advisories from Columbia Water? Residents can sign up to receive notices for their area at: **www.ColumbiaSC.net/911/Citizens-Alerts**.

SC DHEC has completed a comprehensive water assessment report on the Broad River Diversion Canal (also referred to as the Columbia Canal) and Lake Murray. These Source Water Assessment reports are available and can be viewed at 1136 Washington Street or by contacting **803-545-3300**.

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 microbial contaminants are available from the **Safe Drinking Water Hotline 800-426-4791**. Testing since 1994 has revealed no signs of *Cryptosporidium* in Columbia's treated water.

City of Columbia water customers can call **803-545-3300** for more information about water testing or to have your home water tested by our laboratory staff.

Secondary Drinking Water Parameters

Some parameters, listed in the table to the right, affect the taste, odor, and hardness of our drinking water. Because these parameters of water do not impact a person's health, the US EPA has established secondary maximum contaminant levels (SMCLs) that are non-enforceable, recommended guidelines. The City meets these guidelines in addition to the regulations set forth by the US EPA.

Non-Regulated Parameters

The City also collects information about additional parameters that are not regulated by the US EPA. While these parameters do not impact a person's health, they may be useful for those using water for specialized purposes like brewing, or maintaining equipment like chillers and boilers.

For More Information

Customers who need additional water quality information can contact Ketki Sheth, Water Works Laboratory Manager, at **Ketki.Sheth@columbiasc.gov** or **803-733-8211**.

US EPA REGULATED SECONDARY DRINKING WATER PARAMETERS

Parameter	Units	SMCL	Range	Average	Noticeable effects above the MCL
Chloride	ppm	250	4.09-13.97	10.66	salty taste
Color	Color units*	15	0.00-20	0.05	visible tint
Iron (Total)	ppb	300	25-50.3 ppb	48 ppb	rusty color; sediment; metallic taste; reddish or orange staining
Manganese	ppb	50	2.00-10.8	5.8	black to brown color; black staining; bitter metallic taste
pH	s.u.**	TT	7.4-8.4	7.9	***low pH:*** bitter metallic taste; corrosion ***high pH:*** slippery feel; soda taste; deposits
Sulfate	ppm	250	14-27 ppm	20	salty taste
Total Dissolved Solids (TDS)	ppm	500	23-96 ppm	70	hardness; deposits; colored water; staining; salty taste

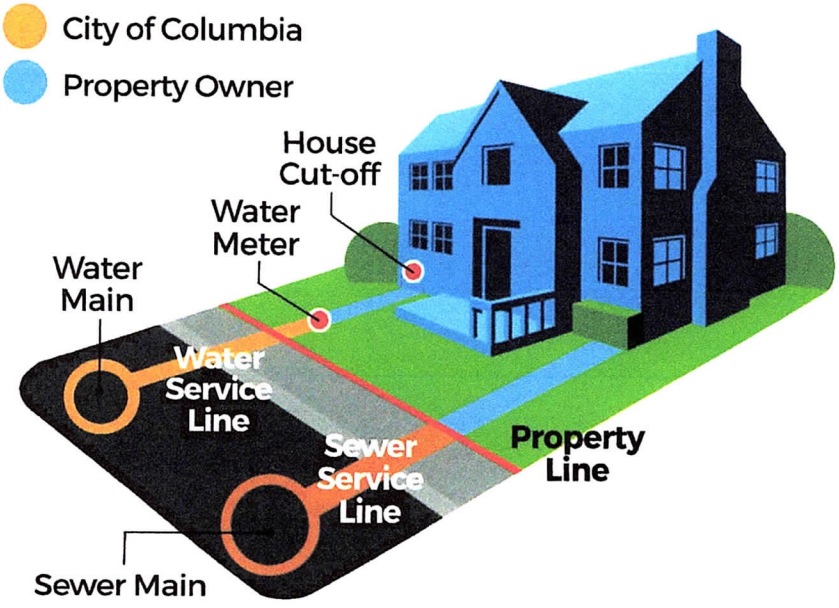
* A standard scale that was developed for measuring color intensity in water samples.
** Standard Unit (s.u.); pH is measured on a logarithmic scale, ranging from 0 to 14 s.u., with 7 s.u. being neutral pH.

2019 ADDITIONAL NON-REGULATED PARAMETERS

Parameter	Units	Range	Average
Sodium	ppm	8 - 11	9.5
Calcium	ppm	6.00 - 13.38	10.39
Magnesium	ppm	1.69 - 2.20	1.90
Total Hardness (CaCO3)	ppm	17 - 44	34
Total Alkalinity	ppm	16 - 29	23
Total Phosphate	ppm	0.51 - 1.08	0.85

Water & Sewer Line Responsibility

The image below shows which portions of a customers' water and sewer service are the responsibility of Columbia Water and which are the responsibility of the property owner. **Columbia Water cannot repair private lines.**



The property owner owns and is responsible for maintaining:

- The water service line running between the meter and the building
- All plumbing attached to the water service line
- And the sewer service line up to the property line

Columbia Water owns and maintains:

- The water main
- The water service line running to the meter
- The meter box
- The meter
- The sewer service line from the property line to the sewer main
- And the sewer main

KNOWLEDGE ON TAP

If there is a problem with any any of these, contact the City at 803-545-3300, and we will address it.