City of West Columbia
Bridging Past, Present and Future

2018 CONSUMER CONFIDENCE REPORT

WEST COLUMBIA, SOUTH CAROLINA

System Number: 321004

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MESSAGE FROM THE MAYOR

Dear Valued Customer,

The City of West Columbia aims to provide superior service while delivering reliable, high-quality drinking water to our customers. Pursuant to the Safe Drinking Act, I am pleased to provide you with the City's 2018 Water Quality Report. This report provides a snapshot of last year's water quality and how it compares to standards set by regulatory agencies. Our staff is committed to providing safe drinking water and safeguarding the public health of our community.

If you have any questions concerning this Report, your water quality, or water service, please contact me at (803) 791-1880.

With kindest regards,

Mayor Bobby Horton
City of West Columbia

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DID YOU KNOW?

Washing your car at home can use between 80-140 gallons of water! In comparison, a commercial car wash facility uses between 40-45 gallons of water per wash.

Many commercial car washes recycle and re-use the wash water that is generated.

Most professional car washes save water by using high pressure pumps to clean the car thoroughly while conserving water at the same time.

POINT OF INTEREST

Approximately seventy-three thousand tests were performed at each water treatment facility to ensure the drinking water quality for the City of West Columbia's customers.

Andy Zaengle, P.E., Director of Engineering and Water Plants
(803) 957-4596

IS MY DRINKING WATER SAFE?

YES, water produced by the City of West Columbia not only meets, but exceeds all standards set forth by the S.C. Department of Health and Environmental Control (DHEC) and the Environmental Protection Agency (EPA).

WHERE DOES MY WATER COME FROM?

The City owns and operates two (2) water filtering and treatment facilities. The City's Riverside Water Filtering and Treatment Facility is located at 406 Sunset Boulevard in West Columbia and has the capacity to provide up to 6 million gallons per day (MGD) of drinking water This plant draws its source water from the Saluda River. The City's second facility, the Lake Murray Water Treatment Facility, is located on Old Cherokee Road in Lexington and has the capacity to provide up to 22.5 MGD of drinking water. Both Facilities provide drinking water for the residents of West Columbia and other areas of Lexington County through approximately 106 miles of water distribution lines ranging from 2" to 36" diameter in size.

2018 TEST RESULTS LAKE MURRAY WATER PLANT

Contaminant	MCLG	MCL	Highest Detected Level	Violation	Typical Source	Sample Period
Nitrate (ppm)	10	10	0.064 - DHEC Result	None	Runoff from fertilizer use	2018
Fluoride (ppm)	4	4	0.66 - Range = 0.408 – 0.992 DHEC Result	None	Erosion of natural deposits; water additive which promotes strong teeth	2018
Copper (ppm)	1.3	AL = 1.3	90% = 0.058	None	Corrosion household plumbing Erosion of natural deposits	1/1/2016 thru 6/2016
Copper (ppm)			90% = 0.054			7/1/2016 thru 12/1/2016
Lead (ppb)	0	AL=15 ppb	0.00 Range=ND – 0.00	None	Corrosion household plumbing Erosion of natural deposits	1/1/2016 thru 6/2016
Lead (ppb)			90% = 0.86 - Range 0.00 – 1.9			7/2016 thru 12/2016
Haloacetic Acids (ppb)	N/A	60	LRAA(ppb) = 19.8 - Range 10.8 – 20.9	None	By-products of drinking water disinfection	2018 Quarterly
Chloramines (ppm)	MRDL= 4	MRDL=4	3.52 - Range = 2.21 – 3.52	None	Water additive used to control microbes	2018
Total Organic Carbon (ppm)	N/A	TT = 1.0 (35%) Removal	39.7% 37 – 43.5% Removal	None	Naturally Present in the environment	2018

TURBIDITY:

Lake Murray Plant's highest detected level: 0.13ntu.
MCLG:< 0.3 ntu in 95 % of samples per month
Possible sources: soil runoff
Met MCLG 100%

TOTAL TRIHALOMETHANES:

MCL 80
Range = 16.01 – 23.92
LRAA = 24.8
Source = By-product of disinfection

2018 TEST RESULTS RIVERSIDE WATER PLANT

Contaminant	MCLG	MCL	Highest Detected Level	Violation	Typical Source	Sample Period
Nitrate (ppm)	10	10	0.042 - DHEC Result	None	Runoff from fertilizer use	2018
Fluoride (ppm)	4	4	1.00 - Range = 0.00 –1.53 DHEC Result	None	Erosion of natural deposits; water additive which promotes strong teeth	2018
Copper (ppm)	1.3	AL = 1.3	90% = 0.058	None	Corrosion household plumbing Erosion of natural deposits	1/2016 thru 6/2016
Copper (ppm)			90% = 0.054			7/2016 thru 12/2016
Lead (ppb)	0	AL=15 ppb	0.00 Range=ND – 0.00	None	Corrosion household plumbing Erosion of natural deposits	1/2016 thru 6/2016
Lead (ppb)			90% = 0.86 - Range 0.00 – 1.9			7/2016 thru 12/2016
Haloacetic Acids (ppb)	N/A	60	LRAA(ppb) = 36.70 - Range 25.5 – 46.5	None	By-products of drinking water disinfection	2018 Quarterly
Chloramines (ppm)	MRDL= 4	MRDL=4	1.38 - Range = 0.62 – 1.38	None	Water additive used to control microbes	2018
Total Organic Carbon (ppm)	N/A	TT = 1.0 (35%) Removal	51.4% 36.7 – 51.4% Removal	None	Naturally Present in the environment	2018

TURBIDITY:

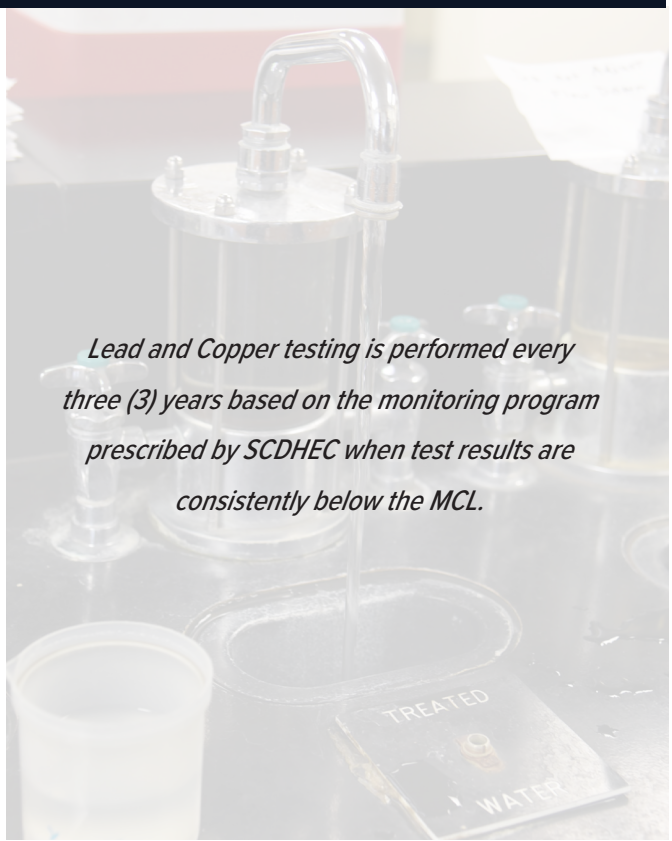
Riverside Water Plant's highest detected level: 0.27ntu.
MCLG:< 0.3 ntu in 95 % of samples per month
Possible sources: soil runoff
Met MCLG 100%

TOTAL TRIHALOMETHANES:

MCL 80
Range = 24.3 – 38.6
LRAA = 32.80
Source = By-product of disinfection

WHAT DO THE SYMBOLS MEAN?

Symbol	Meaning	Description
AL	Action Level	The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
IOC's	Inorganic Contaminants	Chemicals that do not arise from living growth, such as metals and minerals.
MCLG	Maximum Contaminant Levels Goals	The level of a contaminant in drinking water below which there is no known or expected risk of health.
MRDL	Maximum Residual Disinfectant Level	The highest level of a residual disinfectant that is allowed in drinking water.
MCL	Maximum Contaminant Level	ND (Not Detected): Not detectable at testing limit. 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.
pCi/L	Pico curies per liter	Pico curies per liter are a measure of the radioactivity in water.
NTU	Nephelometric Turbidity Units	Nephelometric turbidity units are a measure of the clarity of the water.
ppm	Parts per million or milligrams per liter	One part per million corresponds to one minute in two years or a single penny in $10,000.
TTHM	Total Trihalomethanes	A group of four organic compounds may form when natural organic matter reacts with chlorine.
ppb	Parts per billion or micrograms per liter	One part per billion corresponds to one minute in approx. 1903 years or one penny in $10,000,000.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
LRAA	Locational Running Annual Average	An average of the four quarters from 2016.
NA	Not Applicable	Does not apply.



Lead and Copper testing is performed every three (3) years based on the monitoring program prescribed by SCDHEC when test results are consistently below the MCL.

LET'S TALK ABOUT LEAD

The City of West Columbia wants you to know about lead, where it comes from and what we do to protect you and your family members from exposure.

How can lead get into drinking water?

The most common sources of lead in drinking water are from home plumbing, and typically not from the City's treatment plants or water mains. Some of the common sources from home plumbing are lead based solder used to join copper pipe, faucets with brass fittings, and in some cases lead pipes that connect the home to the water main. The US Environmental Protection Agency states that homes built before 1986 are more likely to contain lead in their plumbing.
Replacing old lead-based2018 pipes and fixtures can be expensive for homeowners, which is why the City's treatment plants use Corrosion Control Measures to reduce the amount of lead that water picks up from the plumbing.

Corrosion Control Measures:

Back in the early 1990's the City started using control measures by adding Orthophosphates to the process at each treatment plant. This additive works to coat the inside of the pipes and acts as a barrier to prevent corrosion. Orthophosphate and PH levels act as indicators for corrosion control. These are tested daily at both treatment plants to ensure that lead concentrations are below safe levels at the homeowners tap.

What you can do: Flushing at the Tap

While the City uses corrosion control measures that can put a protective barrier in the pipes, water that sits in lead containing pipes for several hours can absorb significant amounts of lead. If you suspect your home has lead pipes or other lead based materials, you can reduce lead exposure by flushing the tap. This is done by flushing the standing water from your tap before cooking or drinking. Waiting for a temperature change in the tap water is a good indicator that the line has been flushed.

OTHER IMPORTANT INFORMATION

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 pickup substances resulting from the presence of animals or from human activity. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made.

These substances can be:

- Microbes - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic or organic chemicals - 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.
- Radioactive substances - which can be naturally-occurring or be the result of oil and gas production and mining activities.

All 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 (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

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

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, and 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 guideline s 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).

If present, elevated levels of lead can cause serious health

OTHER IMPORTANT INFORMATION CONTINUED

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. We cannot control the variety of materials used on private property 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 http://www.epa.gov/safewater/lead

Additional Monitoring – UCMR 4

What is UCMR?
The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This national survey is one of the primary sources of information on occurrence and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply.
The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 4) for Public Water Systems and Announcement of Public Meeting" was published in the Federal Register on December 20, 2016 (81 FR 92666).
UCMR 4 monitoring will occur from 2018-2020 and includes monitoring for a total of 30 chemical contaminants:
10 cyanotoxins (nine cyanotoxins and one cyanotoxin group) and 20 additional contaminants (two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid [HAA] disinfection byproducts groups, three alcohols, and three semi-volatile organic chemicals [SVOCs]).

What are the public health benefits of the UCMR program?
The UCMR program provides the EPA and other interested parties with nationally representative data on the occurrence of particular contaminants in drinking water, e number of people potentially being exposed and an estimate of the levels of that exposure. In accordance with SDWA, EPA will consider the occurrence data from UCMR 4 and other sources, along with the peer reviewed health effects assessments, to support a regulatory determination on whether to initiate the process to develop a national primary drinking water regulation.

Result Concentrations:
Office of Water (MS-140)EPA 815-S-19-001 Page 3 of 13Reference Concentrations EPA has established UCMR 4 Minimum Reporting Levels (MRLs) based on the capability of laboratories to perform the analytical method, not based on a level established as "significant" or "harmful." UCMR 4 results reported at or above those MRLs should be interpreted accordingly. The detection of a UCMR 4 contaminant does not represent cause for concern, in and of itself.
Reference concentrations are health-based and provide context for the detection of a UCMR contaminant. They do not represent regulatory limits or action levels and should not be interpreted as an indication that the Agency intends to establish a future drinking water regulation. UCMR occurrence data will be used to inform the Agency's Regulatory Determination process.
Additional information about the CCR including details on reporting requirements can be found on the CCR home page.

2018 Detectable Unregulated Contaminants

Analyte	Range	Highest Reading	MRL*
Bromochloroacetic acid	0.848 – 2.07 ug/l	2.07 ug/l	0.3 ug/l
Bromodichloroacetic acid	1.12 – 2.1 ug/l	2.1 ug/l	0.5 ug/l
Chlorodibromoacetic acid	<.3 – 0.304 ug/l	0.304 ug/l	0.3 ug/l
Dibromoacetic acid	<.3 – 0.336 ug/l	0.336 ug/l	0.3 ug/l
Dichloroacetic acid	5.51 – 14.8 ug/l	14.8 ug/l	0.2 ug/l
Tribromoacetic acid	2.59 – 19.4 ug/l	19.4 ug/l	0.5 ug/l
Manganese	1.0 – 13.5 ug/l	13.5 ug/l	0.4 ug/l
Bromide	29.6 – 30.7 ug/l	30.7 ug/l	20 ug/l
Total Organic Carbon	2870 – 3020 ug/l	3020 ug/l	1000 ug/l

* MRL = Minimum Reporting Limit

https://www.epa.gov/ccr

QUESTIONS?

The City welcomes your comments and questions regarding our drinking water. If you are interested in learning more about the City of West Columbia's Water Department and Water Quality, opportunities to do so are available. Questions about water quality can be answered by calling the Water Department at (803) 957-4596. The City of West Columbia City Council, the elected officials who control West Columbia's water system, conducts regular monthly meetings on the first Tuesday of every month. These meetings are conducted at 6:00 p.m. in the Council chambers in City Hall at 200 N. 12th Street, West Columbia, SC. The public is welcome to attend.

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