

CITY OF WEST COLUMBIA 2017 CONSUMER CONFIDENCE REPORT

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2017

Dear Valued Customer:

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 2017 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.

Sincerely,



Mayor Bobby Horton



City of West Columbia
Bridging Past, Present and Future

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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 based 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.

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.

How can I get involved?

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 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.

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 pick up 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 manmade. 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 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).

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. 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>



What do the symbols on pages 4 & 5 mean?

- **Action Level (AL):** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
- **Inorganic Contaminants (IOC's):** Chemicals that do not arise from living growth, such as metals and minerals.
- **Maximum Contaminant Levels Goals (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk of health.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a residual disinfectant that is allowed in drinking water.
- **ND (Not Detected):** Not detectable at testing limit.

- **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.

- **Pico curies per liter (pCi/L):** Pico curies per liter are a measure of the radioactivity in water.

- **Nephelometric Turbidity Units (NTU):** Nephelometric turbidity units are a measure of the clarity of the water.

- **Parts per million (ppm) or milligrams per liter:** One part per million corresponds to one minute in two years or a single penny in \$10,000.

- **Total Trihalomethanes (TTHM):** A group of four organic compounds may form when natural organic matter reacts with chlorine.
- **Parts per billion (ppb) or micrograms per liter:** One part per billion corresponds to one minute in approx. 1903 years or one penny in \$10,000,000.
- **Treatment Technique (TT)** A required process intended to reduce the level of a contaminant in drinking water.
- **Locational Running Annual Average: (LRAA)** An average of the four quarters from 2016.
- **NA (Not Applicable):** Does not apply.



West Columbia Riverside Treatment Plant



Lake Murray Treatment Plant

Frequently Asked Questions

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).

Did you know?

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

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

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

Special Points 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.*

2017 Test Results Lake Murray Water Plant

<i>Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Detected Level</i>	<i>Violation</i>	<i>Typical Source</i>	<i>Sample Period</i>
Nitrate (ppm)	10	10	0.053 DHEC Result	None	Runoff from fertilizer use.	2017
Fluoride (ppm)	4	4	0.53 Range = 0.525 – 0.837 DHEC Result	None	Erosion of natural deposits; water additive which promotes strong teeth.	2017
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
<u>Lake Murray Plant</u> <u>Haloacetic Acids</u> (ppb)	N/A	60	Highest LRAA (ppb) = 38 Range 15.8 – 26.2	None	By-products of drinking water disinfection.	2017 Quarterly
<u>Lake Murray Plant</u> <u>Chloramines</u> (ppm)	MRDL= 4	MRDL=4	3.66 Range =1.70– 3.66	None	Water additive used to control microbes	2017
Total Organic Carbon	N/A	TT= 1.0 (35%) Removal	55.8% 36.7 – 56% Removal	None	Naturally present in the environment	2017

Turbidity:

- Lake Murray Plant's highest detected level: 0.13ntu.
- Riverside 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 = 12.5 – 28.7
Highest LRAA (ppb) = 29
Source = By-product of disinfection

**** 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. ****

2017 Test Results Riverside Water Plant

Contaminant	MCLG	MCL	Highest Detected Level	Violation	Typical Source	Sample Period
Nitrate (ppm)	10	10	0.31 DHEC Result	None	Runoff from fertilizer use.	2017
Fluoride (ppm)	4	4	0.83 Range = 0.40 – 1.82 DHEC Result	None	Erosion of natural deposits; water additive which promotes strong teeth.	2017
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
<u>Riverside Water Plant</u> <u>Haloacetic Acids</u> <u>(ppb)</u>	N/A	60	Highest LRAA (ppb) = 47 Range 25.6 – 32.7	None	By-products of drinking water disinfection.	2017 Quarterly
<u>Riverside Water. Plant</u> <u>Chlorine (ppm)</u>	MRDL = 4	MRDL= 4	1.21 Range = 0.32 – 1.21	None	Water additive used to control microbes	2017
Total Organic Carbon	N/A	TT= 1.0 (35%) Removal	68.8% 33.3 – 68.8% Removal	None	Naturally present in the environment	2017

Turbidity:

- Lake Murray Plant's highest detected level: 0.13ntu.
- Riverside 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 = 13.7 – 38.5
Highest LRAA (ppb) = 43
Source = By-product of disinfection

**** 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. ****

We are on the Web!

Visit us at:

www.westcolumbiasc.gov



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Bridging Past, Present and Future

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