# **2018 Water Quality Report**

## The City of Loris's water meets or exceeds all drinking water standards.

#### Where does my water come from?

The City of Loris purchases water from the Grand Strand Water & Sewer Authority's Myrtle Beach Surface Water Treatment Facility and Bull Creek Regional Treatment Facility. GSW&SA's Treatment Facility treats water from the Intracoastal Waterway. The Intracoastal Waterway is a freshwater source with several rivers feeding into it such as the Waccamaw River and the Pee Dee River. GSW&SA's Bull Creek Regional Treatment Facility treats water from Bull Creek which is a branch of the Pee Dee River. Bull Creek is located north of the confluence of the Waccamaw and Pee Dee Rivers.

## WATER TESTING

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Water leaving the treatment plant is tested every day for the presence of coliform bacteria. Each month, approximately 120 samples from the distribution system are also tested. During 2018, the coliform bacteria samples were found to be less than the maximum contaminant level as per SC DHEC regulations. Drinking water is tested every day for the presence of undissolved particles. Tiny particles may provide hiding places for bacteria or other micro-organisms. These particles might make the water appear cloudy or muddy. The amount of particles in a water sample is expressed as turbidity. Turbidity of less than 0.3 Turbidity Units (NTU) in 95% of the samples tested is considered acceptable by the EPA. In 2018, the  $95^{th}$ percentile for turbidity in samples tested was 0.098 Turbidity Units (NTU). Our goal is to remove or destroy any organism that is considered harmful to human health. We do this using disinfectants called chloramine and chlorine as well as a very efficient filtration system. The system is monitored 24 hours per day for turbidity and particle counts using modern electronic laser detection equipment. Filters are taken offline and washed to restore efficiency whenever turbidity or particle counts reach predetermined levels.

## BULL CREEK REGIONAL WATER SYSTEM EXCEEDS ALL WATER SYSTEM EXCEEDS ALL WATER QUALITY U.S. STANDARDS

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) and South Carolina Department of Health and Environmental Control (DHEC) prescribes strict regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottles water which must provide the same protection for public health. The amounts of these contaminants are measured by DHEC. The few contaminants that were detected in our water are present at very low concentrations and in all cases are much less than the amounts considered unsafe by the EPA.

## LEAD INFORMATION

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 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 online at http://www.epa.gov/safewater/lead.

### SOURCE WATER ASSESSMENT

The City of Loris purchases water from GSWSA. SC DHEC has completed a source water assessment for that system. A copy of this assessment can be obtained on the web at www.scdhec.gov/water or by calling the Bureau of Water at (803) 898-4300.

Substance	Date Sampled	MCL	Detected Levels (Range or Single Analysis)	MCLG	Most Likely Source Of Contaminant
		REGUL	ATED AT THE TREATMENT PL	ANT	
Fluoride	2018	4.0 ppm	Range: 0.5 – 1.03 ppm Average: 0.75 ppm	4.0 ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
		REGUL	ATED AT THE CUSTOMER'S T	AP	
Lead	2016	15 ppb (AL)	Range: ND – 8.2 ppb 90th Percentile	0	Erosion of natural deposits; Corrosion of household plumbing systems.
Copper	2016	1.3 ppm (AL)	Range: 0.028 – 0.300 ppm 90 <sup>th</sup> Percentile	1.3 ppm	Erosion of natural deposits; Corrosion of household plumbing systems.
Chloramines	2018	4 pp (MRDL)	Range: .1 – 2.7 ppm Average: .46 ppm	4 ppm (MRDLG)	Water additive used to control microbes.
		REGULA	TED AT THE DISTRIBUTION S	SYSTEM	
Total Trihalomethanes (TTHMS)	2018	LRAA: 80 ppb	Range: 16.4 – 62.1 ppb LRAA: 33 ppb	N/A	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA5)	2018	LRAA: 60 ppb	Range: 2-17.8 ppb LRAA: 12.07 ppb	N/A	By-product of drinking water disinfection.

The data presented in this table contains abbreviations and terms that may seem complicated. The following definitions are important for understanding this data. 90th Percentile – Statistical measurement of probability of 90% of samples meeting a certain criteria. < – Less Than AL – Action Levels – Regulations set action levels for some contaminants, for example lead and copper. An action level is the concentration of a contaminant which triggers treatment or other requirements which a water system must follow. AVG – Average LRAA – Locational Running Annual Average 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 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 – is the highest level of a disinfectant that is allowed in finished drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. MRDLG – Maximum Residual Disinfectant Level Goal – Level of disinfectant in drinking water below which there is no known or expected health effect. MRDLG does not reflect the benefits of using disinfectants to control microbial disinfectants. N/A – Not Applicable ND – Not Detected – lab analysis indicates constituent is not present. NGE – No Goal Established NTU – Nephelometric Turbidity Unit – measure of clarity – turbidity in excess of 5 NTU is just noticeable to the average person. pCi/L – Picocuries per Liter – A measure of radioactivity in water. ppb – Parts per Billion – The equivalent of one penny in \$10,000,000. ppm – Parts per Million – The equivalent of one penny in \$10,000,000. TT – Treatment Technique – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

#### **CONTAMINANTS THAT MAY BE PRESENT IN THE 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 storm water 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, urban storm water runoff, and residential uses. 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 storm water runoff, and septic systems. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities. 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 at (800) 426-4791.



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