



What is a Water Quality Report?

The U.S. Environmental Protection Agency (EPA) requires water suppliers to deliver annual drinking water quality reports to their customers. These reports give consumers valuable information to make personal health-based decisions regarding their drinking water consumption. The results from January 2021 to December 2021 are included in this report.

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.

Is my water safe to drink?

To ensure that tap water is safe to drink, the EPA and S.C. Department of Health and Environmental Control (DHEC) prescribes strict regulations limiting the amount of certain contaminants allowed in water provided by public water systems. 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 and S.C. DHEC.

Information about lead in drinking 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. 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>.

Water Testing & Treatment Overview

The City's water is purchased from Grand Strand Water & Sewer Authority (GSWSA). According to GSWSA's report for Horry County: "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 2021, 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 2021, we measured turbidity of less than 0.3 NTU in 100% of the samples tested. 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."

In addition to the testing described above, the City of Loris tests 6 different locations each month for total residual chlorine (TRC) and two locations for trihalomethanes (TTHM) and haloacetic acids (HAA5).

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, urban stormwater 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 stormwater 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.

Water Quality Table for the City of Loris

Lead and Copper – Inorganic Contaminants for Loris (SC2610010)

Contaminants (unit of measure)	ALG	AL	90 th percentile	# Samples Exceeding AL	Exceeds AL (Yes/No)	Sample Date	Typical Source
Copper-action level at consumer taps (ppm)	1.3	1.3	0.15	0	No	2019	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead-action level at consumer taps (ppb)	0	15	2.0	0	No	2019	Corrosion of household plumbing systems. Erosion of natural deposits.

Disinfectant and Disinfection By-Products for Loris (SC2610010)

Contaminants (unit of measure)	MCLG or MRDLG	MCL, TT, or MRDL	Detect in Your Water	Range	Violation (Yes or No)	Sample Date	Typical Source
Chlorine (ppm)	4	4	0.70 RAA	0.6 – 0.7	No	2021	Water additive used to control microbes
HAAs [Haloacetic Acids] (HAA5) (ppb)	N/A	60	26 LRAA	11.89 – 27.4	No	2021	By-product of drinking water chlorination.
TTHMs [Total Trihalomethanes] (ppb)	N/A	80	19 LRAA	2.81 – 22.91	No	2021	By-product of drinking water disinfection.

Chemical and Radionuclide Constituents for water purchased from GSW&SA Bull Creek (SC2620004)

Contaminants (unit of measure)	MCLG or MRDLG	MCL, TT, or MRDL	Detect in Your Water	Range	Violation (Yes or No)	Sample Date	Typical Source
Nitrate (ppm)	10	10	1.0	0 – 1.2	No	2021	Runoff from fertilizer use. Erosion of natural deposits.
Fluoride (ppm)	4	4	1.42 (average)	0.68 – 3.1	No	2021	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium (ppm) [unregulated]	NA	NA	76.2 (average)	16 – 220	No	2021	Naturally occurring.
Atrazine (ppb)	3	3	0.91	0.91 – 0.91	No	2021	Runoff from herbicide used on row crops.
Metolachlor (ppm) [unregulated]	NA	NA	0.05	0 – 0.05	No	2021	Runoff from herbicide.
Dicamba (ppb) [unregulated]	NA	NA	0.13	0 – 0.13	No	2021	Runoff from herbicide.
Beta/photon emitters (pCi/L)	0	50*	3.0	3.0 – 3.0	No	2019	Decay of natural and man-made deposits.

*The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles. Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents was required.

Term & Abbreviation Definitions

AL – Action Levels: The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement 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 – 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: 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 indicated constituent is not present.

NTU – Nephelometric Turbidity Unit: measure of clarity – turbidity in excess of 5 NTU is just noticeable to the average person.

ppb - Parts per Billion: concentration equivalent to about 1 drop in 264,000 gallons; 1 penny in \$10,000,000.

ppm – Parts per Million: concentration equivalent to about 1 drop in 264 gallons; 1 penny in \$10,000.

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

TTHMs – Total Trihalomethanes: a specific family of disinfection byproducts.

HAAs – Haloacetic Acids: a specific family of disinfection byproducts.

Source Water Assessment

Raw water sources are most susceptible to contamination from runoff or environmental conditions. For more information about source water assessment visit <https://scdhec.gov/environment/your-water-coast/source-water-protection>.

Got Questions? Contact the City of Loris Today



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