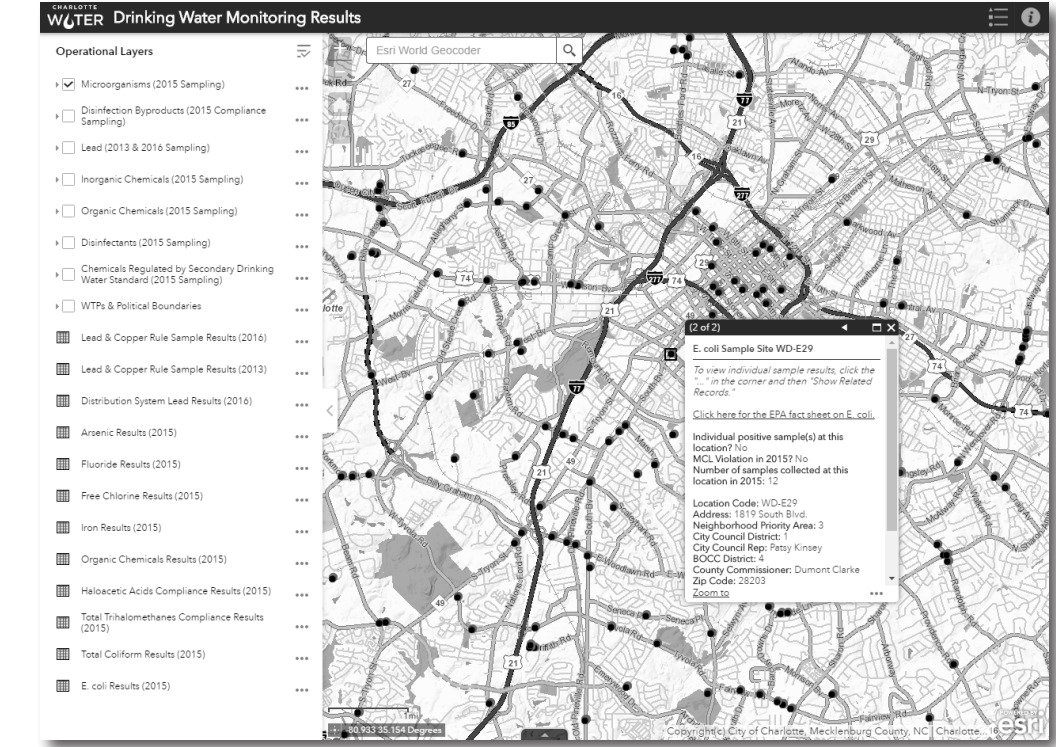


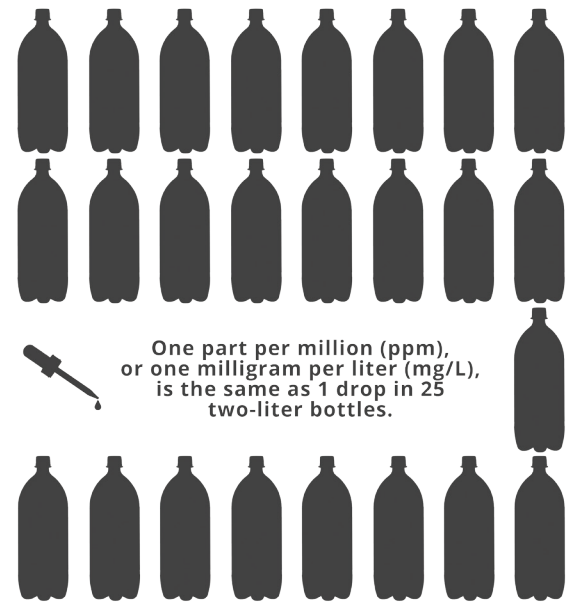
DATA ANYTIME

In 2016, Charlotte Water established an online application to display all drinking water quality results mapped by sampling location. Test results are color coded to indicate if the individual test meets water quality standards. The map is available for viewing any time at <http://charlottewater.org>.



MEASURING WATER QUALITY

Charlotte Water's state of the art laboratory equipment can detect substances in water at levels so small that measurements are in parts per million or parts per billion.



IS OUR WATER HARD OR SOFT?

Water hardness is defined by the amount of trace minerals present, such as calcium and magnesium. Water is considered "hard" if it has more than 125 parts per million (ppm) of trace minerals. Charlotte's tap water in 2016 averaged 30 parts per million of trace minerals, so it is considered "soft" water. In 2016, Charlotte Water averaged 8.5 mg/L sulfate and 3.8 mg/L sodium in drinking water leaving the treatment plants.

WHY IS THERE CHLORINE IN MY WATER?

Chlorine is added to the water treatment process as a disinfectant to remove bacteria and prevent waterborne illnesses. Chlorine levels are maintained in the distribution system to prevent bacteria regrowth that may develop while water is traveling through 4,200 miles of distribution pipes.

WHY DOES CHARLOTTE WATER ADD FLUORIDE TO OUR WATER?

Fluoride has been proven to promote oral health. Charlotte Water has been adding it to the drinking water since 1949. As recommended by the American Dental Association, fluoride concentrations in Charlotte Water are approximately 0.7 parts per million.

WHAT ABOUT LEAD OR COPPER IN OUR DRINKING WATER?

Charlotte Water tests for lead and copper in the treated water leaving the treatment plants. Results consistently indicate that lead or copper are not detected in the drinking water. Charlotte Water also manages a corrosion control program to significantly reduce the risk of metals like lead or copper dissolving into drinking water from pipes and plumbing as it travels to your home or business.

In the next 5 years, Charlotte Water will spend more than \$269 million for community investment projects that rehabilitate and replace drinking water and wastewater pipes.



SEE A LEAK IN THE STREET? SPOT A SEWER OVERFLOW?

Call 704-336-7600 or 311. Our staff work 24/7 to ensure you have safe, clean drinking water and functioning sanitary sewers.

CLOUDY OR DISCOLORED WATER IN THE TAP?

Drinking water supplied from Charlotte Water is normally clear and clean. However, there are several situations that can create disturbances in distribution pipelines causing drinking water to become discolored and have a brown or reddish tint. Pressure surges, main breaks, fire hydrant flows and maintenance work utilizing heavy equipment can cause mineral deposits to leach from the interior surface of distribution pipes into the drinking water and cause discoloration. If you experience discolored water, let your cold water faucets run for about 20 minutes to flush out your plumbing. If flushing doesn't help, please call 704-336-7600 or 311.

<http://charlottewater.org>
CLTWaterBlog.org [/CharlotteWater](https://www.facebook.com/CharlotteWater) [@CLTWater](https://twitter.com/CLTWater)



Operated by the City of Charlotte



The following information outlines the substances detected in your water in 2016, how these levels compare with federal limits and the likely source of these substances. Your drinking water continues to meet all state and federal drinking water standards.

CHARLOTTE WATER takes its responsibility to provide high quality drinking water very seriously. We send this report annually as required by the EPA, to help customers learn more about their drinking water supply and how it arrives to you. **To review the full Consumer Confidence Report, please go to www.CLTWaterWQReport.org.**

OUR SHARED WATER SUPPLY

Our drinking water comes from Mountain Island Lake and Lake Norman, both part of the Catawba River basin, which provides water for more than 1.5 million people in our region. This is an excellent source and means a great start toward high quality drinking water.

TREATMENT PROCESS

Untreated water from the lakes is gravity fed or pumped to one of our three drinking water treatment plants. The water is filtered and disinfected to become clean drinking water. This water travels through approximately 4,200 miles of pipes to your home. Once you have used your water, it travels through an additional 4,200 miles of pipes to one of our five wastewater treatment plants. We treat the wastewater to remove solids, bacteria, nutrients and other pollutants. After rigorous testing, the water is put back into the creek.

WHAT'S IN OUR WATER

Water is monitored and tested in every stage of the treatment process. Charlotte Water regularly tests for over 150 contaminants and this report outlines the substances detected in our water over the last year. A list of non-detected substances can be found on Charlotte Water's website.



Our trained lab and field staff conducted more than 220,000 drinking water tests in 2016, which far exceeds the required number. Even the highest contaminant levels detected were well below federal limits.

COLIFORM BACTERIA

Your Water: 0.08% Samples Positive

EPA Standard (Level 1 Assessment Trigger): No more than 5% samples are positive

Bacteria are naturally present everywhere and are a vital part of our environment. At certain levels bacteria can also have negative health effects in drinking water. A positive water sample indicates that the bacteria are present in the sample.

TURBIDITY

Your Water: 100% of samples were less than 0.3 NTU

EPA Standard: At least 95% of samples are less than or equal to 0.3 NTU

Turbidity is the measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of the filtration system. These samples represent filtered water measurements in our treatment process.

TOTAL ORGANIC CARBON

Your Water: 0.92 parts per million

Compliance Method: Less than 2.00 parts per million

Total organic carbon is measured by how much carbon is removed during water treatment. Organic carbon is naturally present in the environment. This information represents average concentrations from water leaving our treatment plants.

FLUORIDE

Your Water: 0.70 parts per million

EPA Standard: Less than 4.0 parts per million

Fluoride can be naturally found in your water due to the erosion of natural deposits. The American Dental Association recommends adding fluoride so the drinking water contains 0.7 parts per million. Fluoride supports good dental health and promotes strong teeth. This information represents average concentrations from water leaving our treatment plants.

CHLORINE

Your Water: 1.28 parts per million

EPA Standard: Less than 4.0 parts per million

Chlorine is added at the treatment plant to ensure that as drinking water travels from the treatment plants to your home through 4,200 miles of pipes that it stays free of any harmful bacteria. This information represents average concentrations from water leaving our treatment plants.

DISINFECTION BYPRODUCTS - TTHM & HAA5

Total Trihalomethanes (TTHM)
Your Water: 51.7 parts per billion (highest average from 12 testing sites)

EPA Standard: Less than 80.0 parts per billion locational running annual average

Disinfection byproducts form when chlorine reacts with naturally occurring organic and inorganic matter in water.

Haloacetic Acids (HAA5)
Your Water: 13.0 parts per billion

EPA Standard: Less than 60 parts per billion

CORROSION CONTROL - LEAD & COPPER

LEAD
Your Water: 98% of samples were less than 15 parts per billion; 90th percentile result of samples was non-detectable

EPA Action Level: 90th percentile of samples must be below 15 parts per billion

Lead and copper testing is different from any other kind of monitoring Charlotte Water conducts. In addition to testing samples from the treatment plant, samples are also taken from taps from inside the homes of customers. This method is designed to measure Charlotte Water's corrosion control program. One of the 56 sites tested exceeded EPA limits of 15 parts per billion but when retested, a concentration of lead was not detectable.

To satisfy monitoring requirements for lead and copper, Charlotte Water is required to test 50 samples once every 3 years. In addition to the required sites, in 2016 Charlotte Water tested an additional 310 locations for lead and copper throughout the distribution system and inside the homes of customers. None of the additional samples tested detected lead levels above the EPA Action Level.

COPPER
Your Water: 100% of samples were below 1.3 parts per million.

EPA Action Level: 90th percentile of samples must be below 1.3 parts per million

THALLIUM

Your Water: 1.2 parts per billion (Max reading)

EPA Standard: Less than 2.0 parts per billion

On August 3, 2016, one sample at Vest Water Treatment Plant tested at 1.2 parts per billion. No other sample tested in 2016 contained thallium at detectable levels. Thallium is an inorganic chemical and sources of thallium include discharges from ore-processing sites or electronics, glass and drug factories.

EPA standards are set at very stringent levels. To understand the possible health effects described for many regulated compounds, a person would have to drink two liters of water every day at the highest level of a contaminant that is allowed in drinking water for a lifetime to have one-in-a-million chance of having the described health effect.