LONG BEFORE YOU STEP INTO YOUR SHOWER OR TURN ON YOUR FAUCET, CHARLOTTE WATER EMPLOYEES

HAVE WORKED **24** HOURS A DAY, **7** DAYS A WEEK AND **365** DAYS A YEAR TO PROTECT OUR DRINKING WATER AND THOSE WHO USE IT.

OUR (VERY GOOD) RESULTS

Drinking water provided by Charlotte Water meets and exceeds all state and federal drinking water standards.

Our state-certified water treatment operators and nationally accredited lab staff conducted thousands of drinking water tests in 2014, far exceeding the required amount. Even the highest contaminant levels detected were well below federal limits.

OUR SHARED WATER SUPPLY

Mountain Island Lake and Lake Norman are the source waters for Charlotte Water. These surface waters are part of the Catawba River basin, which provides water for more than 1.5 million people in our region. Charlotte Water operates three water treatment plants that collectively clean an average of 100 million gallons a day for 800,000 people in Charlotte, Cornelius, Davidson, Huntersville, Pineville, Matthews and Mint Hill.

We publish this report annually, as required by the EPA, to help customers learn more about our critical water resources. The EPA has allowed us to save rate dollars and distribute the report electronically. To view the report in its entirety, along with past water quality reports, please visit charlottewater.org.

CHARLOTTE WATER'S ANNUAL COMPLIANCE RESULTS AND AVERAGES OF 2014

CONTAMINANT	LOCATION	MEETS STANDARD	YOUR WATER	EPA LIMIT (MCL)	EPA GOAL (MCLG)	LIKELY SOURCE
MICROBIAL CONTAMINANTS						
Total Coliform (% positive)	Distribution system	√	0.16% - monthly average 0.66% - highest monthly average	No more than 5% positive/month	0	Naturally present in the environment
E. Coli (% positive)	Distribution system	√	0 Positive sample	0 (MCL is exceeded if a routine sample and a repeat sample are total coliform positive and one is also fecal or E. Coli positive)	0	Naturally present in the environment
TURBIDITY						
Turbidity (NTU) (maxium level)	Franklin Vest Lee Dukes	√ √ √	0.26/100% 0.10/100% 0.25/100%	TT = 0.3 NTU TT = % of samples ≤ 0.3	N/A	Soil runoff
INORGANIC CONTAMINANTS						
Fluoride (ppm)	Franklin Vest Lee Dukes	√ √ √	0.71 0.67 0.69	4	4	Erosion of natural deposits;water additive which promotes strong teeth
COPPER & LEAD CONTAMINANTS RESULTS FROM 2013						
Copper (ppm)	Distribution	√ at 90th percentile	None detected	AL = 1.3 of household	1.3	Corrosion in system plumbing systems; erosion of natural deposits
Lead (ppb) *3 of 53 sites exceeded Action Levels (AL)	Distribution system	√	7 ppb detected at 90th percentile	AL = 15	0	
DISINFECTANTS AND DISINFECTION BYPRODUCTS CONTAMINANTS						
Chlorine (ppm)	Franklin Vest Lee Dukes	√ √ √	1.22 (0.76-1.74) 1.21 (0.87-1.53) 1.19 (0.66-1.77)	MRDL=4	MRDL G=4	Water additive used to control microbes
THM (ppb) Trihalomethanes (Maximum Locational Running Annual Average)	Distribution System	√	68.3	80	N/A	By-product of drinking water chlorination
HAA5 (ppb) Haloacetic Acids (Maximum Locational Running Annual Average)	Distribution System	√	12.3	60	N/A	By-product of drinking water disinfection
TOTAL ORGANIC CARBONS (TOC)		TREATED Average	Compliance Removal Ratio (Min-Max)	Criteria (Min-Max)		
Total Organic Carbon (ppm)	Franklin Vest Lee Dukes	√ √ √	0.93 (0.82-1.02) 0.98 (0.91-1.03) 0.94 (0.80-1.03)	ACC#2 Treated < 2.0		Naturally present in the environment

UNREGULATED CONTAMINANT MONITORING		Average	OBSERVED RANGE Low	High
Strontium (ppb)	Franklin	33.8	31.9	35.8
	Vest	33.3	31.4	35.2
	Lee Dukes	32.6	30.9	34.9
	Distribution system	34.5	32.2	35.7
Vanadium (ppb)	Franklin	0.54	0.44	0.66
	Vest	0.53	0.41	0.66
	Lee Dukes	0.56	0.44	0.75
	Distribution system	0.52	0.42	0.60
Total Chromium (ppb)	Franklin	0.18	ND	0.44
	Vest	0.15	ND	0.35
	Lee Dukes	0.20	ND	0.31
	Distribution system	0.20	ND	0.30
Chromium-6 (ppb)	Franklin	0.055	0.042	0.061
	Vest	0.058	0.046	0.066
	Lee Dukes	0.096	0.089	0.10
	Distribution system	0.064	0.045	0.082

*mg/L = ppm & ug/L = ppb

GLOSSARY OF TERMS

Not-Applicable (N/A) Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) One part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Million Fibers per Liter (MFL) Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) A required process intended to reduce the level of a contaminant in drinking water.

RAA Running Annual Average

Maximum Residual Disinfection Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level (MCL) 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.

Maximum Contaminant Level Goal (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.

Total Organic Carbon (TOC) Has no health effects; however, organics provide a medium for the formation of disinfection byproducts. The TOC compliance criteria applies only to treated water.

Turbidity % Low percentages are a goal for all substances except turbidity. The turbidity rule requires that 95% or more of the monthly samples be less than or equal to 0.3 NTU.

Locational Running Annual Average (LRAA) The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule

PROTECTING THE ENVIRONMENT AND PROVIDING

CLEAN DRINKING WATER

IS A RESPONSIBILITY THAT CHARLOTTE WATER

TAKES VERY SERIOUSLY.

WATER AND SEWER:
UNDERSTANDING THE DIFFERENCE

DRINKING WATER

Your drinking water system in Charlotte Water begins with water from Lake Norman or Mountain Island Lake. This raw water is pumped to one of three water treatment plants, where it is filtered and disinfected to become clean drinking water. Then it travels through more than 4,200 miles of water mains directly to your home.

Each year, Charlotte Water performs more than 150,000 tests to ensure the safety and quality of our drinking water, which regularly meets and exceed all state and federal drinking water standards.

Charlotte shares its water supply with many other cities. A regional Water Supply Master Plan has been prepared by the Catawba-Wateree Water Management Group that could extend the water supply capacity from 2050 to 2100. More info at www.catawbawateremwg.org

WASTEWATER/SEWER

The wastewater system, sometimes called sewer, is not connected to the storm water system. When you take a shower, wash clothes or flush a toilet, the wastewater generated from these activities in your home flows through the wastewater pipe system to one of five wastewater treatment plants in Mecklenburg County.

There, the wastewater is treated to remove solids, bacteria, nutrients and other pollutants. After much testing and monitoring, the water is discharged back into a creek, which flows into one of our rivers. The removed solids are treated further and then, through stringently regulated processes, recycled for use as fertilizer on farmers' fields or landfilled.

FLUORIDE

Fluoride has been proven to promote oral health. Charlotte Water has added fluoride to our water since 1949. Fluoride is added to Charlotte Water tap water at a concentration of approximately 0.7 milligrams per liter or less than 1 part per million, as recommended by the American Dental Association.

The drinking water system is managed by Charlotte Water and is paid for by user fees, not property tax dollars.

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CHARLOTTE WATER

2014 Water Quality Report

charlottewater.org

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