



2005
WATER QUALITY REPORT



DRINK UP CHARLOTTE!

Each year, Charlotte-Mecklenburg Utilities prepares a Water Quality Report for its customers, as mandated by federal law. This report provides important details about the quality of the water we provide to our community. We are pleased and proud that once again Utilities has met and surpassed all standards set by any regulatory agency in accord with all state and federal drinking water standards.

We are dedicated to providing our customers with a safe

and healthy water supply and embrace our role as stewards of the water we treat and distribute every day. This report demonstrates the continuous efforts and outstanding professionalism of our employees involved in water treatment. Their hard work ensures that your water meets all known standards for safety, reliability and quality. We encourage you to read this report to understand the process of bringing water from source to tap.

QUALITY WATER BEGINS WITH THE SOURCE

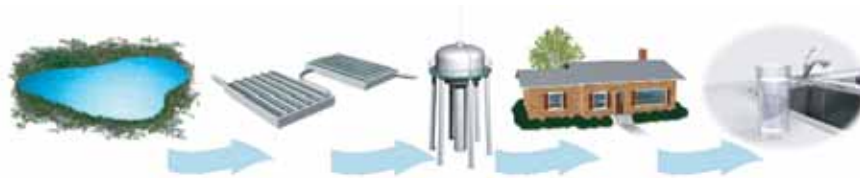
Surface water from Lake Norman and Mountain Island Lake provides high quality water for our many uses. As an integral part of the Catawba River Basin, these lakes are the main source of drinking water for several other communities in adjoining counties in addition to the Charlotte area. It is estimated that over 1.5 million people in our region rely on the Catawba River and its lakes for their water needs. That

number is expected to double over the next 50 years.

On an average day, 105 million gallons of clean, safe drinking water are pumped from the lakes to one of three water treatment plants in Charlotte for treatment and distribution throughout the county to more than 700,000 customers, visitors and businesses.

UNDERSTANDING OUR TREATMENT PROCESS

Before you can turn on your tap, our employees treat your water to remove any harmful substances that may be present. The process begins by pumping water from Lake Norman and Mountain Island Lake to Franklin Water Treatment Plant, Vest Water Treatment Plant or Dukes Water Treatment Plant. The next step begins with a rapid mix phase, where chlorine is added for disinfection and alum is added to cause dirt particles to bond together.



This creates bigger clumps.

Next the water flows through filters trapping even smaller particles. After filtration, chemicals are added for final disinfection. The pH is adjusted to make the water non-corrosive and fluoride is added to help promote good dental health.

The combined treatment capacity of all three water treatment plants is 242 million gallons per day.

WHAT'S IN OUR WATER

Many of the substances we are required to test for occur naturally in our environment. We list only the substances our lab detected along with the location of the treatment plant where the samples were taken.

This chart contains the name of each contaminant, the unit of measurement, the location, our test result, the mandated goals and limits and the likely source of the contaminant. The units of measure vary by substance and are noted on the chart as either milligrams per liter, mg/l, ppm or micrograms per liter, ug/l, ppb.

For a complete list of all tested substances, contact the City/County Customer Service and Information Center at 311 or visit www.cmutilities.com.





SOURCE WATER ASSESSMENT PROGRAM

(The following information is provided by North Carolina Department of Environment and Natural Resources and is required to be included in this report. If you have any questions about this information call 919-715-2633)

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source to potential contaminant sources. The results of the assessment are available in SWAP Assessment reports.

The relative susceptibility rating of each source for Charlotte-Mecklenburg Utilities was determined by combining the contaminant rating and the vulnerability rating or the existing conditions of the watershed. The assessment findings

are summarized in the table below.

It is important to understand that a susceptibility rating of higher does not imply poor water quality, only the systems' potential to become contaminated by potential contaminant sources in the assessment area.

The complete SWAP Assessment report for Charlotte-Mecklenburg may be viewed on the web at : <http://www.deh.enr.state.nc.us/pws/swap>.

Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this site may differ from the results that were available at the time this CCR was prepared. To obtain a printed copy send a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634 or email swap@nc.aill.net.

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating	Date
Mt. Island/Catawba River	Higher	Moderate	Higher	March 2005
Lake Norman	Higher	Higher	Higher	March 2005

INFORMATION EPA WANTS YOU TO KNOW

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some substances. The presence of these substances does not necessarily indicate that the water poses a health risk. All sources, both tap and bottled, are fed by water that passes over the surface of the land or under ground. The water dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in raw (untreated) water include:

- Microbial – viruses and bacteria from human, agricultural or wildlife sources.
- Inorganic – salts and minerals naturally-occurring or result from urban runoff, industrial or domestic wastewater discharges, mining or farming.
- Pesticides and herbicides – may come from agricultural runoff or residential use.

- Organic chemicals – may come from industrial or domestic processes, oil and gas production, runoff and septic systems.
- Radioactive materials – can be naturally occurring or the result of mining or human activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain substances in water provided by public systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

For more information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

For More Information About This Brochure

Please contact the City/County Customer Service and Information Center at 311 or Maeneen Klein / Charlotte-Mecklenburg Utilities 5100 Brookshire Blvd., Charlotte, NC 28216 704-399-2221 www.cmutilities.com

Translation

La información contenida en este folleto es de gran importancia. Por favor de hablar con una persona que la entienda o llame por teléfono al número 704-336-7600 para pedir una copia de este folleto en español.

Trong tập tài liệu chỉ dẫn này có nhiều điều quan trọng. Xin quý vị nhờ người thông dịch hay nhờ bạn bè dịch lại để có thể được hiểu rõ ràng.



SUBSTANCES FOUND IN OUR DRINKING WATER IN 2005

Contaminant	Your Water	MCLG	MCL	Likely Source
Microbial Contaminants				
Total Coliform* (see notice)	5.94% (highest monthly %) 1.01% (annual average)	0	5% of monthly samples are positive	Naturally present in the environment
E. coli	1 positive sample	0	0 (MCL is exceeded if a routine sample and repeat sample are total coliform positive and one is also fecal coliform or E. coli positive)	Naturally present in the environment
Turbidity				
Turbidity (NTU) Franklin Vest Lee Dukes	0.18 0.14 0.11	N/A	TT = 5 NTU TT = % of samples < 0.3	Soil runoff
Inorganic Contaminants				
Fluoride (mg/L) Franklin Vest Lee Dukes	0.99 0.98 1.00	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Synthetic Organic Chemical				
2,4 – D (ppm) Vest	0.00001	.07	.07	Herbicide runoff
Pichloram (ppm) Vest	0.00003	0.5	0.5	Herbicide runoff
Simazine (ppm) Franklin Vest	0.00006 0.00003	.004	.004	Herbicide runoff
Lead and Copper				
Copper (ppm)	Non-detect @ 90th percentile	1.3	AL = 1.3	Corrosion of household plumbing; erosion of natural deposits
Lead (ppb)	5.0 @ 90th percentile	0	AL = 15	Corrosion of household plumbing; erosion of natural deposits
Radioactive Contaminant				
Alpha emitters (pCi/L) Franklin Vest Lee Dukes	3.3 2.4 5.7	0	15	Erosion of natural deposits
Beta emitters (pCi/L) Franklin Vest Lee Dukes	3.3 3.8 1.6	0	50	Decay of natural and man made deposits
Combined Radium (pCi/L) Franklin	0.2	0	5	Erosion of natural deposits
Disinfection Byproducts Contaminants				
TTHM (ppb) Franklin Vest Lee Dukes Distribution	35.0 35.0 35.0 44.0	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) Franklin Vest Lee Dukes Distribution	16.3 13.5 16.7 21.0	N/A	60	By-product of drinking water disinfection
TOC Removal				
Total Organic Carbon (mg/L) Franklin Vest Lee Dukes	RAW Average (Min–Max) 1.55 (1.39–1.68) 1.55 (1.43–1.66) 1.52 (1.40–1.71)	TREATED Average (Min–Max) 1.09 (0.89–1.30) 1.1 (0.9–1.32) 1.05 (0.87–1.05)	Compliance Criteria < 2.0	



OUR RESULTS

Treating an average of 105 million gallons of water a day for use in homes, schools, hospitals, and businesses that meets all required water quality standards is the accomplishment of our expertly trained lab analysts and state-certified water treatment operators.

Our commitment to exceptional water quality is reflected in the number of tests we perform during and after the treatment process. Over 150,000 analyses were conducted during 2005 to ensure reliable results and safe drinking water. This number far exceeds the required testing levels.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. During 2005 we tested for more than 150 substances. Even the highest levels detected were well below limits required. We listed in this report only the substances our lab detected and the location of the treatment plant where the samples were taken.



GLOSSARY

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

Maximum Contaminant Level Goal (MCLG) – The Goal (MCLG) is 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.

Maximum Contaminant Level (MCL) – The Maximum Allowed (MCL) is 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 technology.

Non-Applicable (N/A) – Information not applicable or required

Non-Detects (N/D) – laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of radioactivity in water.

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

Parts per billion (ppb) – one part per billion (micrograms per liter) corresponds to one minute in two thousand years, or one

penny in \$10 million.

Nephelometric Turbidity Unit (NTU) – a measure of the cloudiness of the water. Turbidity over 5 ntu is just noticeable to the average person. It is a good indicator of the effectiveness of our filtration system.

Turbidity % - low levels are a goal for all substances except turbidity as a percentage. The turbidity rule requires that 95% or more of the monthly samples must be below 0.5 ntu.

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

TT – a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Total Organic Carbon (TOC) – has no health effects. However, TOC provides a medium for the formation of disinfection byproducts.

Extra note: MCL are set at very stringent levels. To understand the possible health effects for many regulated substances, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

NOTICE*

During June 2005, water samples collected for testing showed the presence of coliform bacteria. Our investigation showed the bacteria were not found in the water but rather in the sampling equipment. Simply put, the samples were accidentally contaminated during the collection process. We have determined that the bacteria were introduced into the samples through contact with tainted sampling equipment. The type of bacteria detected in the samples has never been found in our drinking water. Once the source of the problem was identified and new test samples taken, no bacteria were found. The problem was corrected. At no time was there any health risk posed to our customers. As a precaution and in accordance with state rules, several hundred letters were sent to customers along the sampling route and to the news media.



Charlotte-Mecklenburg Utilities
5100 Brookshire Boulevard
Charlotte, North Carolina 28216

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UTILITIES

GET INVOLVED!

**There are lots of ways to actively participate
in water quality issues in this community.**

For more information

please call us at 311

or check us out at our website:

cmutilities.com