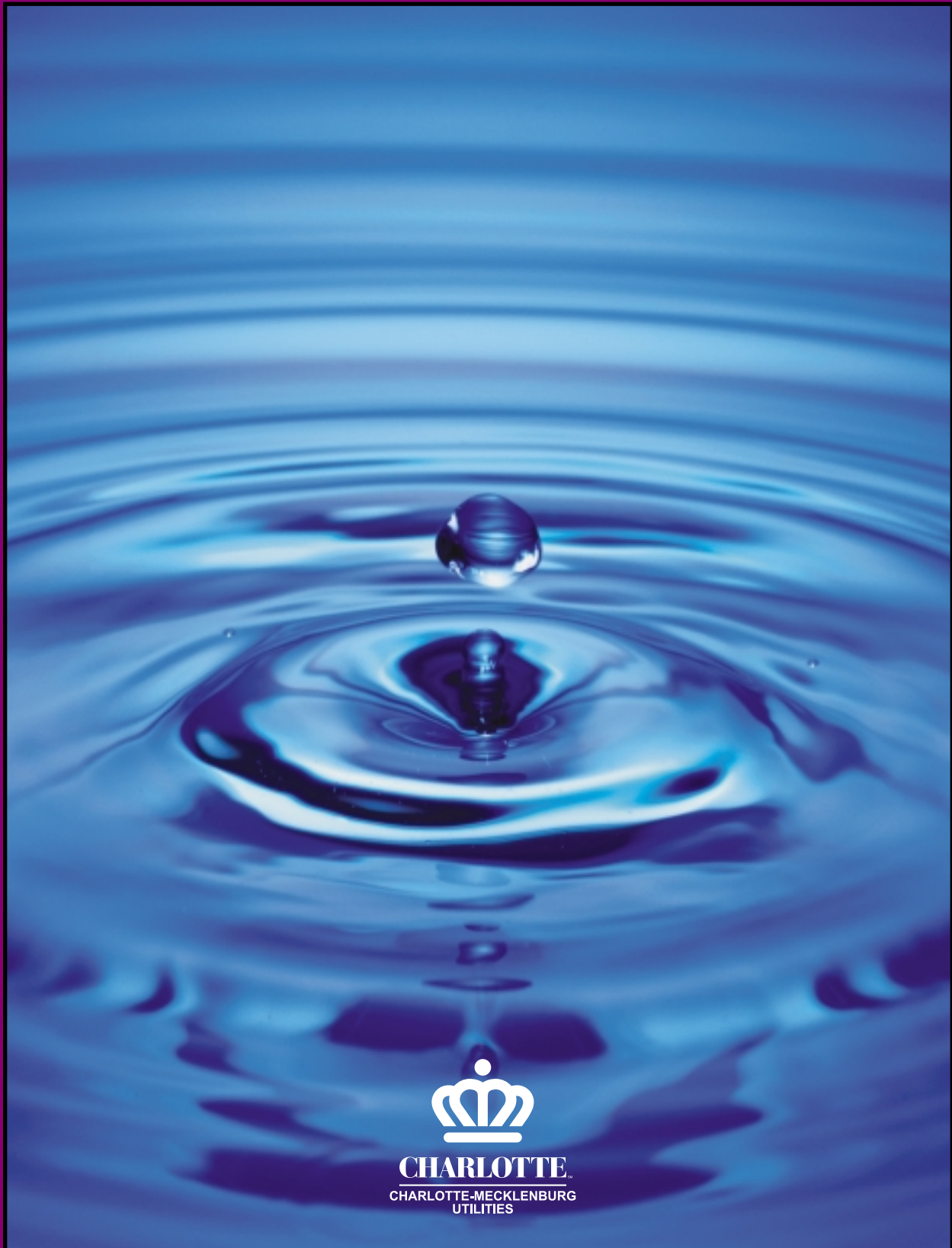


Charlotte-Mecklenburg Utilities
2002 Water Quality Report



Good news about your drinking water.

2002 Water Quality Report



We are proud to present our fifth annual Water Quality Report for drinking water in Charlotte-Mecklenburg. This year, like all of the past years since standards and testing have been required, our water has met or exceeded all EPA and state drinking water standards.

Treating an average of 109 million gallons of water a day for use in homes, hospitals, schools and businesses without a single water quality violation is the accomplishment of our expertly trained chemists and state-certified water treatment operators. They perform over 325,000 water quality tests each year at each of the water treatment plants: Franklin, Vest and North Mecklenburg.

We tested for over 100 substances and we only detected 14. Even the highest levels detected were well below limits set by any regulatory agency. In fact, most detected levels were significantly lower than the amounts allowed. By comparison, 2001 results detected 18 elements

and tests during 2000 showed 17 detectable substances. In short, Charlotte-Mecklenburg Utilities provides safe, clean drinking water to our customers and continues leading the way in water quality protection.

The Federal Safe Drinking Water Act requires all public water systems to produce this report to its customers. We are pleased to share our results and encourage our customers to read and understand the issues and factors affecting their water. It is our legacy and our challenge to continue to safeguard our community's water for future generations.

The ABC's of Water Treatment

Our water comes from Mountain Island Lake and Lake Norman. The treatment process begins with the rapid mix phase, where chlorine is added for disinfection and alum is used for coagulation. The alum causes dirt particles to bond together, creating bigger clumps which settle to the bottom.

Next the water is put through a filtration system where 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.

Except for chlorine and fluoride, every chemical used in the treatment process is removed before the finished water is distributed to you.



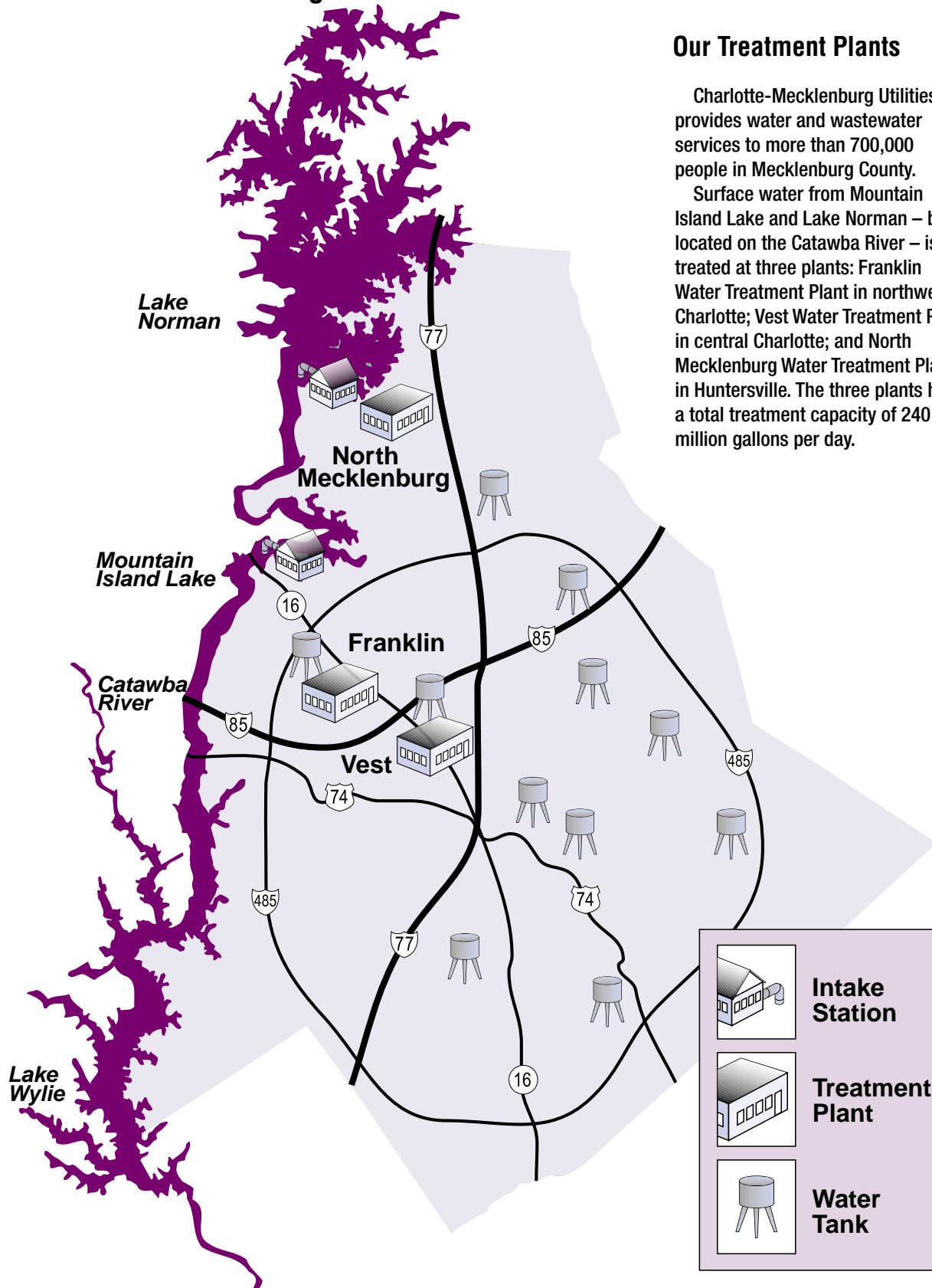
Special Information for People with Health Concerns

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, those 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.

Environmental Protection Agency (EPA) and Center for Disease Control (CDC) guidelines on appropriate means to reduce the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)



Distribution in Charlotte-Mecklenburg



Our Treatment Plants

Charlotte-Mecklenburg Utilities provides water and wastewater services to more than 700,000 people in Mecklenburg County.

Surface water from Mountain Island Lake and Lake Norman – both located on the Catawba River – is treated at three plants: Franklin Water Treatment Plant in northwest Charlotte; Vest Water Treatment Plant in central Charlotte; and North Mecklenburg Water Treatment Plant in Huntersville. The three plants have a total treatment capacity of 240 million gallons per day.

How to Read This Chart

These water quality graphs show substances found in your drinking water from January 1, 2002 to December 31, 2002. Not listed are more than 100 other substances for which we tested that were not detected. For a complete listing of all tested substances, contact the City/County Customer Service and Information Center at 704-336-7600 or visit www.cmutilities.com.

Each graphic typically shows measurements in milligrams per liter (mg/l) – which is the same as parts per million (ppm) – or micrograms per liter (µg/l), which is the same as parts per billion (ppb).

To put these tiny units of measurement into perspective, consider that one part per million is equivalent to one penny out of \$10,000 and one part per billion is equivalent to one penny out of \$10,000,000.

Each of the purple bars represents a water treatment plant.

A gray bar (labeled "Dist.") represents all of the treatment plants together.

The number above the bar is the amount detected for that substance.

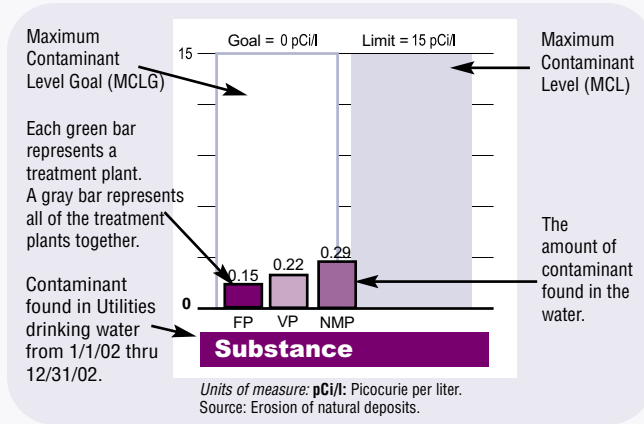
The unit of measurement may vary for each substance but each is defined in the glossary.

The darker blue bars represent federal limits and goals. The light blue bar represents a Maximum Contaminant Level (MCL), which is the highest level of a substance that is allowed in drinking water by federal law. All substances listed are below this limit.

The dark blue bar represents the Maximum Contaminant Level Goal (MCLG). Some of the listed substances are above this level; however, these levels are simply goals.

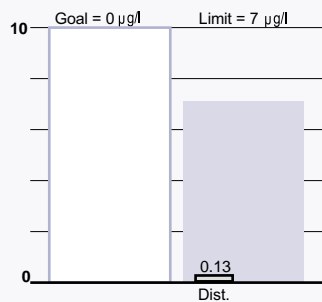
MCLs or MCLGs have not been established for some substances. These levels are represented by N/E.

2002 Treated Water Quality Roundup



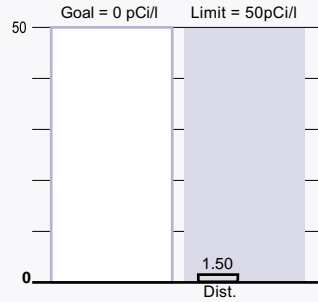
Key to Contaminant Graphs

- Franklin Plant (FP)
- Vest Plant (VP)
- N. Mecklenburg Plant (NMP)
- Distribution Wide (DIST)
- Maximum Contaminant Level Goal
- Maximum Contaminant Level



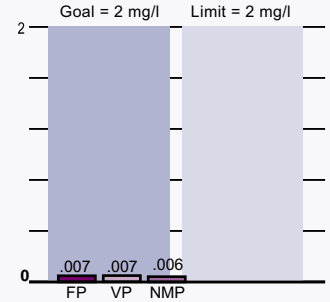
Asbestos

Units of measure: µg/l: Micrograms per liter.
 Source: Erosion of plumbing.



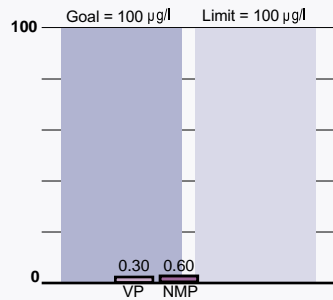
Beta/photon emitters

Units of measure: pCi/l: Picocurie per liter.
 Source: Erosion of natural deposits.



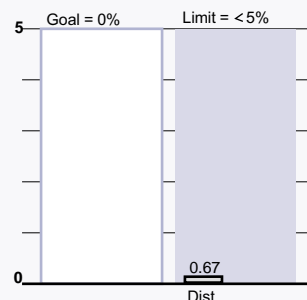
Barium

Units of measure: mg/l: Milligrams per liter.
 Source: A naturally occurring mineral found in most soils.



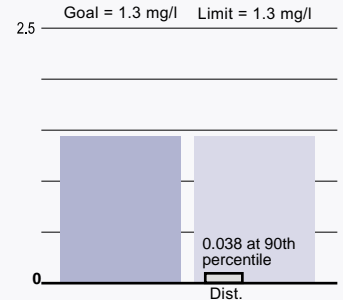
Chromium

Units of measure: µg/l: Micrograms per liter.
 Source: Erosion of natural deposits.



Coliform

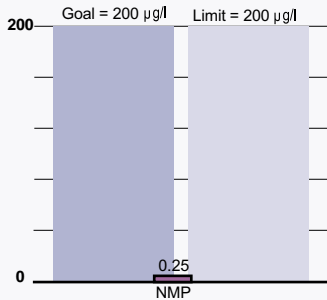
Units of measure: Percent positive (%)
 Source: Animal and human waste.



Copper

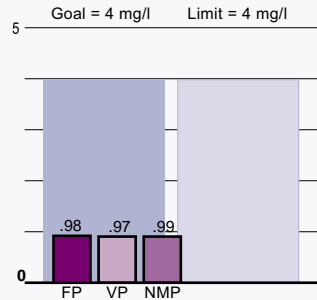
Units of measure: mg/l: Milligrams per liter.
 Source: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Charlotte-Mecklenburg Utilities provides high quality water with contaminant levels below government limits.



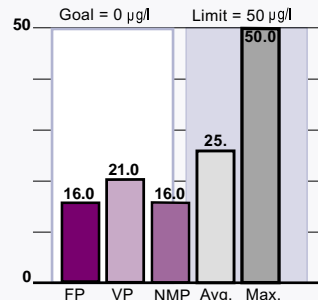
Dalapon

Units of measure: µg/l: Micrograms per liter.
Source: Herbicides on orchards, beans, coffee and lawns; Also roadways and railroads.



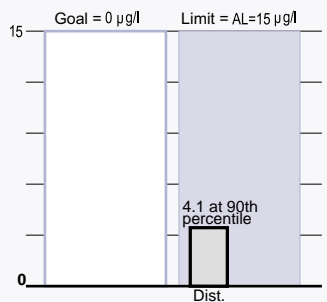
Fluoride

Units of measure: mg/l: Milligrams per liter.
Source: Water additive which promotes dental health; erosion of natural deposits.



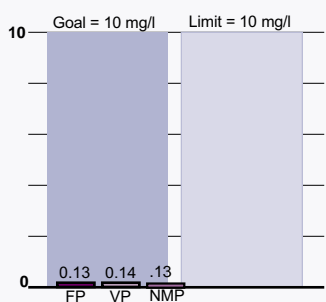
HAAs (Haloacetic Acid)

Units of measure: µg/l: Micrograms per liter.
Source: By-product of drinking water chlorination. Note: "Max" reading represents the highest single reading from the average. Also, the mcl doesn't apply to the max reading.



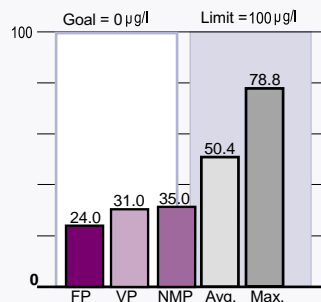
Lead

Units of measure: µg/l: Micrograms per liter.
Source: Corrosion of household plumbing systems; erosion of natural deposits.



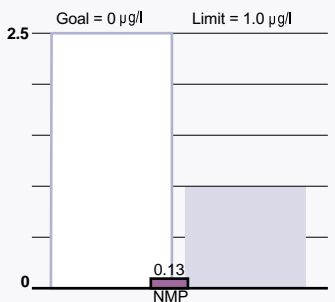
Nitrate

Units of measure: mg/l: Milligrams per liter.
Source: Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.



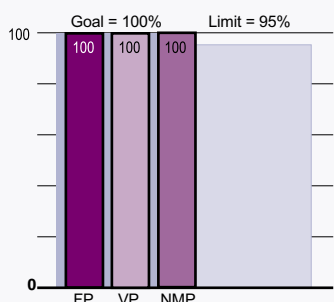
THMs (Trihalomethanes)

Units of measure: µg/l: Micrograms per liter.
Source: By-product of drinking water chlorination. Note: "Max" reading represents the highest single reading from the average. The mcl doesn't apply to the max reading.



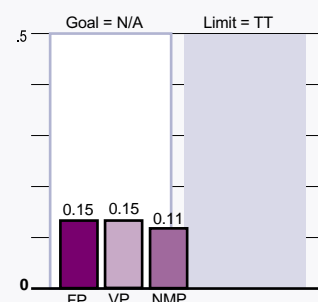
Toluene

Units of measure: µg/l: Micrograms per liter.
Source: Occurs naturally in crude oil; it is produced when making gasoline, other fuels, and paint.



Turbidity (%)

Note: Low levels are a goal for all of these substances except turbidity as a percentage. The % turbidity goal is to remain at or below an acceptable level of turbidity 95 percent of the time, so a higher number is desired.



Turbidity (NTU)

Units of measure: NTU (Nephelometric Turbidity Units)
Source: Soil runoff.

Glossary

AL (Action Level):

The concentration of a contaminant which, if exceeded, triggers additional treatment measures by the public water system.

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 Goal):

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.

N/E:

No established MCL or MCLG.

TT (Treatment Technique):

A required process intended to reduce the level of a contaminant in drinking water.

Turbidity/Clarity:

How clear the water is.

Understanding Contaminants

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 the 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:

- 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 run off or residential use.
- Organic chemicals – may come from industrial or domestic processes, oil and gas production, run off 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 that 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 that must provide the same protection for public health.

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



Conserving Our Water

Conservation means making changes in water use habits that will reduce the amount of water we use as well as eliminate water waste. This is important because as water use continues to increase, we have to manage a limited available supply for many purposes, such as recreation, manufacturing, fire protection, health care and food production.

We can all do our part to conserve by changing the ways we use water. Taking shorter showers, turning off the water when we brush our teeth, limiting lawn watering to 2 days a week can all make a difference. For more information about water conservation, call 704-391-5144.



Get Involved!

There are lots of ways to actively participate in water quality issues in this community. For more information, please call us at 704-391-5144.

Did You Know...

- Charlotte-Mecklenburg Utilities provides drinking water to over 700,000 customers every day.
- We maintain over 3,230 miles of water mains and lines in Mecklenburg County.
- In 2002, CMU safely treated and pumped 39,689,197,000 gallons of drinking water for the citizens and visitors of Charlotte-Mecklenburg.



Q and A About Your Water

Why does Charlotte-Mecklenburg add chlorine and fluoride to our water?

Chlorine aids in disinfection and fluoride provides a defense against tooth decay. Both of these substances are added to water at the water treatment plant. Chlorine is added to prevent bacterial contamination. Tap water is tested frequently to ensure that the addition of chlorine has not produced a harmful level of THMs, a by product of disinfection. Fluoride has been proven to promote good dental health. Charlotte-Mecklenburg Utilities has been adding fluoride to the water since 1949.

Is our water hard or soft?

Water is considered hard if it measures more than 125 parts per million or 7.5 grains per gallon of trace minerals. Our water has a hardness measure of 30 parts per million, or 1.8 grains per gallon, which is considered soft.



Does Charlotte-Mecklenburg test for other contaminants not listed in this report?

The U.S. Environmental Protection Agency created the format for this report and does not require substances to be listed if they are not detected in the public water supply.

For more information about substances for which we test, please contact the City/County Customer Service & Information Center at 704-336-7600 or visit the 'publications' link at www.cmutilities.com

What exactly is Cryptosporidium?

Cryptosporidium is a microscopic parasite found in surface waters, especially when these waters contain a high amount of sewage or animal waste. If ingested through food or drink, it can cause a gastrointestinal illness. Your tap water is continually tested and treated to prevent exposure to this parasite. Cryptosporidium has never been found in our drinking water.

What can cause my water to be discolored occasionally?

Water flowing to your tap is normally clean and clear, but certain disturbances in water pipes – a pressure surge or water main break, for example – can stir up sediment within water lines and temporarily cause your water to have an orange or brown tint. If you have a problem with colored water coming from your cold water tap, contact the City/County Customer Service & Information Center at 704-336-7600.

How much water does Charlotte-Mecklenburg use in a day?

In 2002, the average daily consumption was 108.6 million gallons. That's a 7% increase over the



average daily consumption in 2000. We consume the most water in June, an average of 142.7 million gallons a day. The lowest months were February and March at 87.6 million gallons a day usage. All customers are urged to use water wisely to protect our resources. For more information about water conservation contact the water conservation coordinator at 704-399-2221.

What is Charlotte-Mecklenburg doing to protect our water from threats?

Be assured that your water is safe to drink and all reasonable steps are in place to protect the public water system. Water quality control has been an everyday part of our mission since long before 9/11. While security details aren't something we discuss publicly, they are a vital part of our operating procedure. Charlotte-Mecklenburg Utilities has further enhanced existing security measures and participates in emergency preparedness with state and federal agencies. We will take all appropriate steps to ensure continued delivery of safe and sufficient drinking water.



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E C R W S S

Postal Customer

Water is a limited resource. Please conserve.

For More Information About This Brochure

Please contact the City/County Customer Service and Information Center at (704) 336-7600 or call Maeneen Klein, Water Conservation Coordinator at 704-399-2221.

For More Water Quality Information

Charlotte-Mecklenburg Utilities
5100 Brookshire Blvd.
Charlotte, NC 28216
(704) 399-2221
www.cmutilities.com

U.S. Environmental Protection Agency (EPA)
401 M Street, SW
Washington, DC 20460
(202) 260-2090
Safe Drinking Water Hotline
(800) 426-4791
www.epa.gov

North Carolina Department of Environment and Natural Resources (DENR)
512 North Salisbury Street
PO Box 27687
Raleigh, NC 27611-7867
(919) 733-2321
www.ehnr.state.nc.us/EHNR/

American Water Works Association (AWWA)
6666 West Quincy Avenue
Denver, CO 80235
(303) 794-7711
www.awwa.org

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.



Charlotte-Mecklenburg Utility Public Water System ID
Number = 01-60-010