For More Information About This Brochure
Please contact the City/County Customer Service and Information Center at (704) 336-7600.

For More Water Quality Information

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

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

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5100 Brookshire Boulevard
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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.

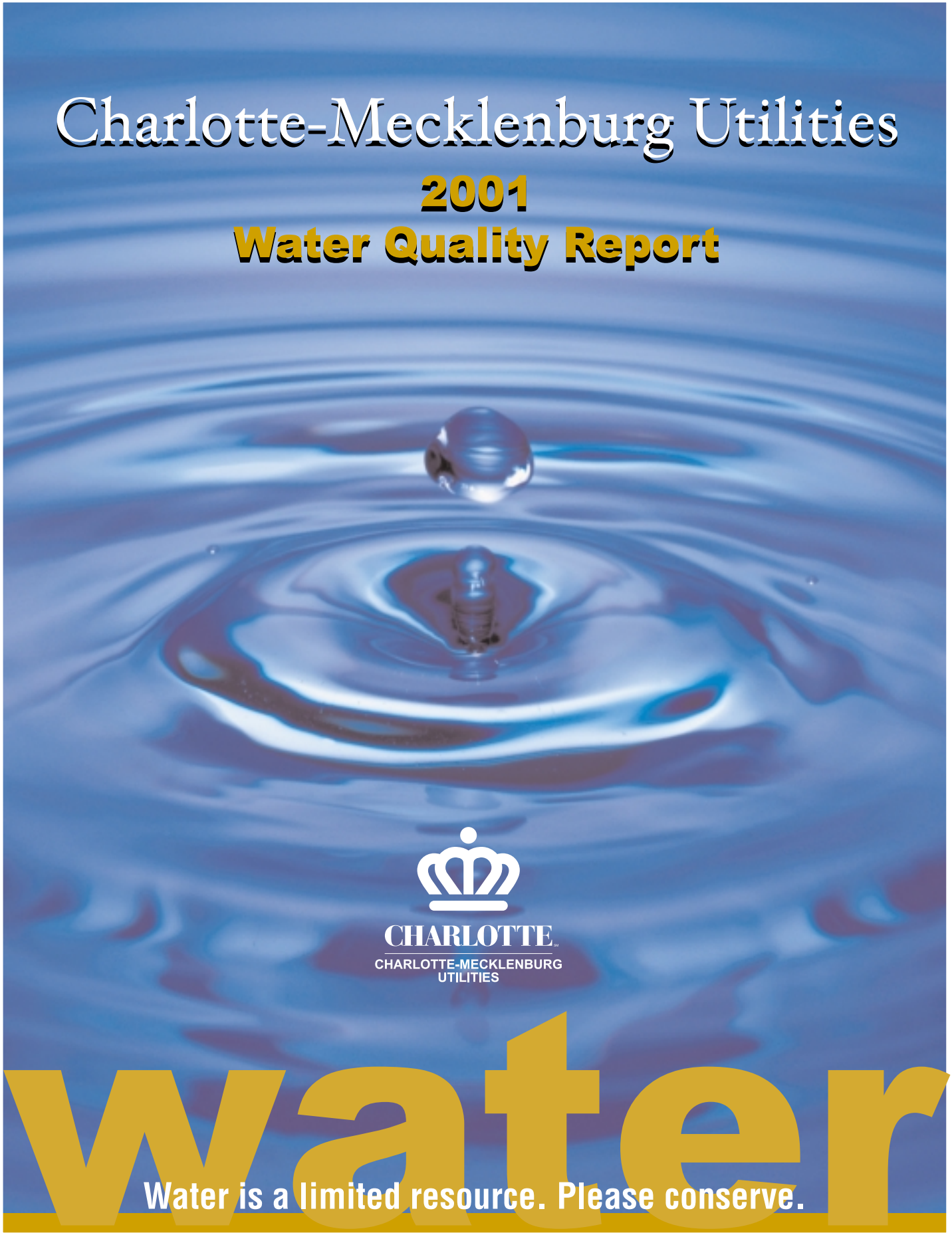
Trong tập tài liệu chỉ dẫn này có nhiều điều quan trọng. Xin quí vị nhờ người thông dịch hay nhờ bạn bè dịch lại để có thể được hiểu rõ ràng.

Good news about your drinking water.

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

Charlotte-Mecklenburg Utilities

2001
Water Quality Report



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UTILITIES

water

Water is a limited resource. Please conserve.

Charlotte-Mecklenburg Utilities 2001 Water Quality Report

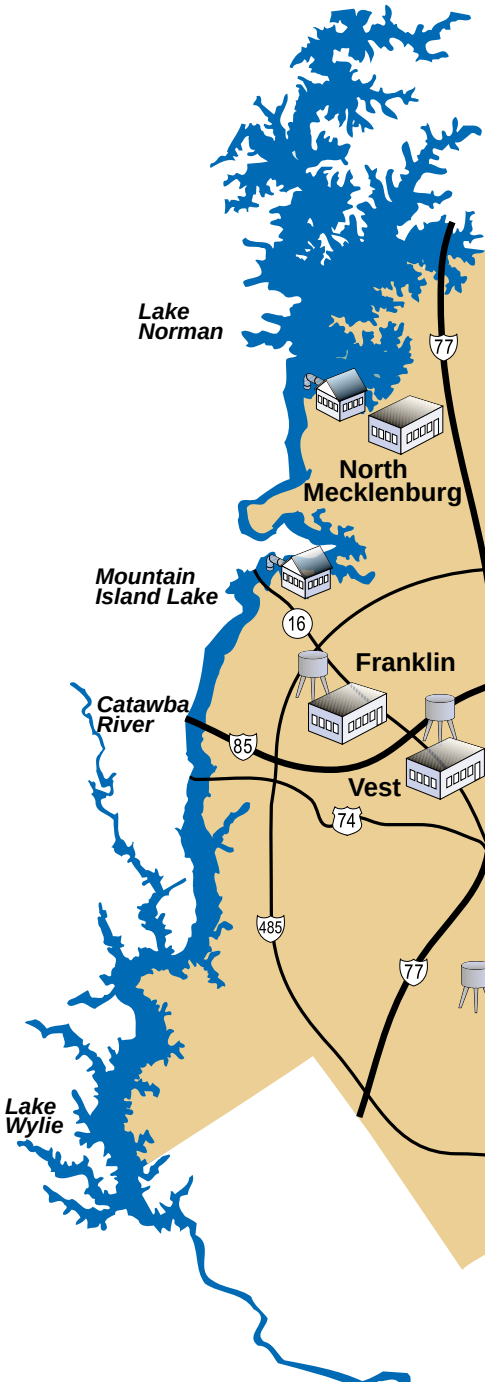
2001 was another top year for tap water in Charlotte-Mecklenburg, with zero drinking water quality violations and an average of more than 106 million gallons safely delivered each day to homes, schools and businesses all over Mecklenburg County.

This fourth annual Water Quality Report published by Charlotte-Mecklenburg Utilities demonstrates our drinking water continues meeting higher standards than state and federal regulations require. Our well-trained chemists and state-certified water treatment operators perform more than 300,000 water quality tests each year at the Franklin, Vest and North Mecklenburg water treatment plants.

Only 18 of more than 100 substances for which we test could be detected at *any* level in our water during 2001, and even the highest detected levels were below state and federal limits. By comparison, the 2000 Water Quality Report showed 17 detectable substances in our drinking water, the 1999 Water Quality Report showed 11 and the 1998 report showed 15 (levels in all reports were below limits).

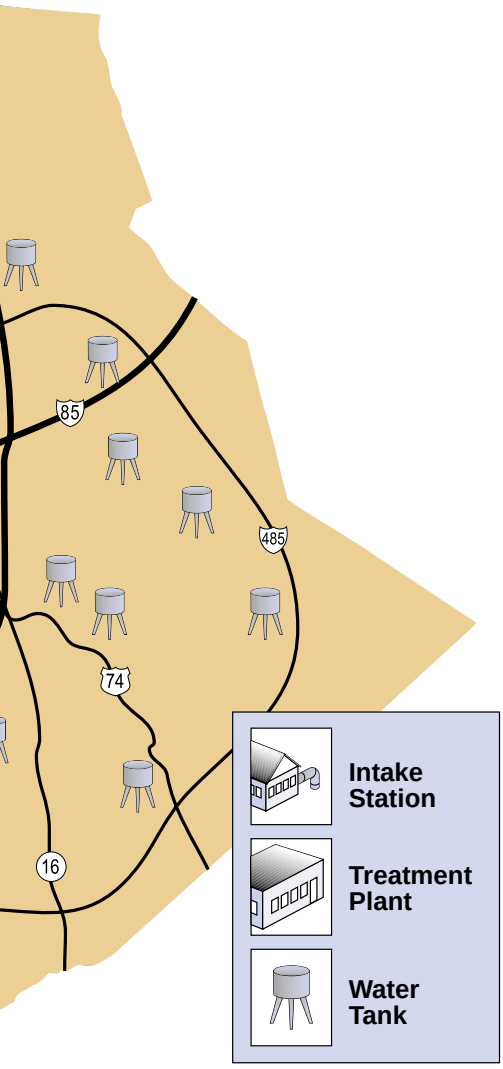
It's important to note the change in quantity of substances found in our latest report does not necessarily signify changing water quality. The ongoing development of more sensitive scientific instruments and sophisticated analytical techniques allows us to measure water characteristics in precise and minute quantities that previously were undetectable.

The Federal Safe Drinking Water Act requires virtually all public water providers to issue this type of report to customers. We look forward to communicating our findings each year – not just because we're proud of the high-quality product we provide, but because informing customers about water quality creates support for a vital issue in our growing community and region.



Distribution Area

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 202 million gallons per day.

Let's Be Clear: A Message About Water Quality

As water travels over land surface or through the ground, it dissolves naturally occurring minerals and may pick up substances resulting from human activity or the presence of animals.

Substances that may be present in source water include: biological contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use; and natural or man-made radioactive materials.

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 of public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, but their presence does not necessarily indicate that water poses a health risk.

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

Get Involved!

For more information about this brochure or to actively participate in water quality issues in this community, please call us at 704-391-5144.

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Frequently Asked Questions

Why are only a few contaminants listed in this report? What about other potential contaminants, like mercury?
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. We monitor for mercury and numerous other substances not listed here. 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.

I have heard a lot about arsenic recently. Is it an issue in Charlotte-Mecklenburg?
No. There have been changes to state arsenic regulations, and a new limit of 10 parts per billion (or ppb, equivalent to micrograms per liter) is in place. However, the highest amount of arsenic detected here during 2001 measured at 0.2 ppb – which is far, far below the new, more stringent limit.

Is Charlotte-Mecklenburg Utilities water 'hard'?
No. Hard water contains high levels of minerals that can make it difficult to develop a sudsy lather when combined with soap or other detergents. Hard water can also leave excessive mineral deposits in appliances. Water is considered 'hard' if it measures more than 125 parts per million or 7.5 grains per gallon. Our water has a hardness measure of 30 parts per million, or 1.8 grains per gallon, and is considered 'soft.'

Is the chlorine in my water harmful?
No. Chlorine is added during water treatment to prevent bacterial contamination. However, chlorine can form by-products upon reacting with organic elements in the water. These by-products, known as trihalomethanes (pronounced try-hay-low-METH-aynes, otherwise known as THMs), are considered a potential cancer-causing compound if taken in high concentrations. Your tap water is tested quarterly to assure the chlorine used for disinfection is not causing formation of harmful levels of THMs.

Why is my water sometimes colored?
Water flowing to your tap is normally clear and clean, 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 a brown or orange 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.

What affects the taste of my water?
In this community, taste is affected by mineral content as well as the presence of chlorine. Sometimes a metallic flavor can come from your plumbing, especially if the water has been sitting in the pipes for many hours. Newer homes with PVC (plastic) pipes may also experience altered taste or odor temporarily. Other taste and odor problems are caused by the attachment of new or old garden hoses, ice maker hoses, washing machine hoses, etc. to water faucets in your home. Taste and odor do not necessarily indicate the degree of water safety. Letting the water run a minute to clear the lines will help, or fill a pitcher and allow it to sit for several hours.

Why is fluoride added to the water?

A very small amount of fluoride has been added to the public drinking water supply here since 1949 to promote dental health. Fluoride levels are monitored by the N.C. Department of Environment and Natural Resources as well as the Mecklenburg County Public Health Department.

What about lead or copper in my tap water?

There is no detectable lead or copper in Charlotte-Mecklenburg's water supply sources. Some homes and buildings may have elevated lead or copper levels at the tap if water remains in the pipes for awhile. Lead may leach from plumbing containing lead, or where copper pipes are joined with lead-based solder. To minimize the risk of exposure to lead and copper in your tap water, run your cold water tap for a minute until the lines are flushed.

What is cryptosporidium and should I be concerned about it?

Cryptosporidium (pronounced krip-toe-spore-ID-ee-um) is a microscopic parasite that can be found in surface waters and can cause a gastrointestinal illness if ingested. It lives in human and animal wastes and can be transmitted by ingestion of contaminated food or drinking water. Charlotte-Mecklenburg Utilities has tested for crypto during the past nine years and never detected it in our drinking water supply.

What is Charlotte-Mecklenburg doing to protect our water since the 9/11 attacks?

Rest assured your water is safe to drink and all reasonable steps are in place to protect the public water system. This report has shown for years that 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. Since the attacks, Charlotte-Mecklenburg Utilities has further enhanced existing security measures and remains in close communication with local, state and federal authorities. We will continue taking appropriate steps as needed to ensure continued delivery of safe and sufficient drinking water.

Special Information

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.

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).

2001 Treated Water Quality Roundup

How to Read This Chart

These water quality graphs show substances found in your drinking water from January 1, 2001 to December 31, 2001. **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 **brown bars** represents a water treatment plant.

A **gray bar** represents all of the treatment plants together.

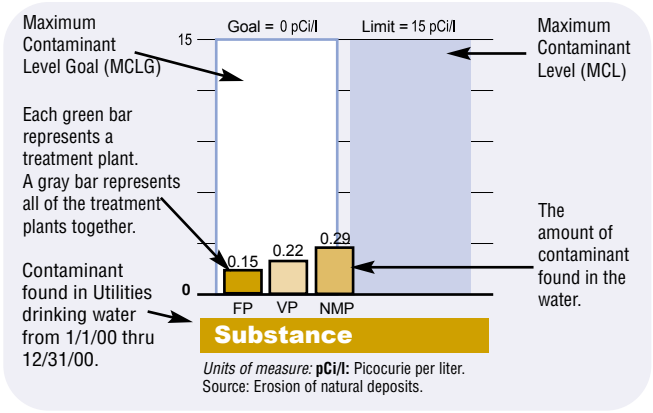
The **number above the bar** is the amount detected for that substance.

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

The **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.

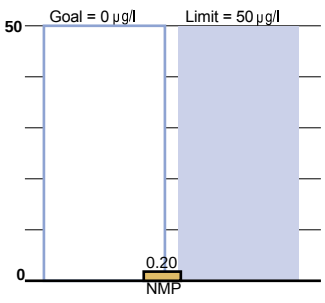
The *dark blue bar* represents the Maximum Contaminant Level Goal (MCLG). Some of the listed substances are above this level; however, these levels are simply **goals**.

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



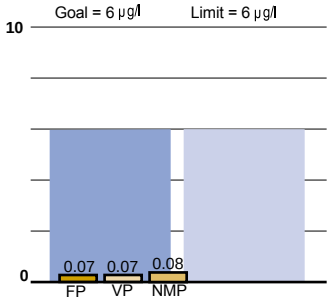
Key to Contaminant Graphs

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



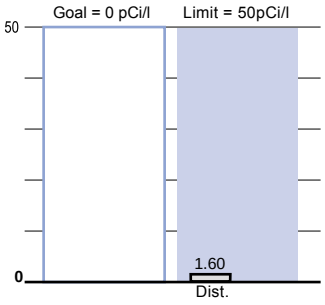
Arsenic

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



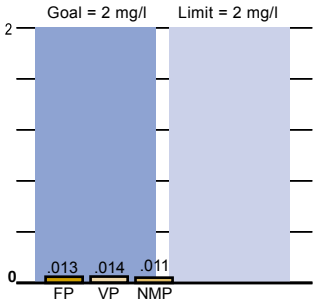
Antimony

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



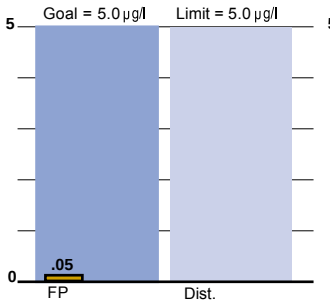
Beta/photon emitters

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



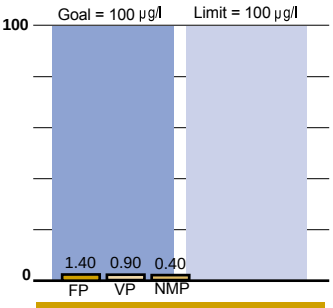
Barium

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



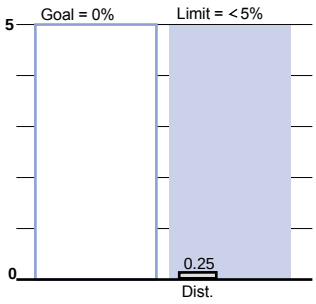
Cadmium

Units of measure: **µg/l:** Micrograms per liter.
Sources: Galvanized pipes, natural deposits, batteries and paint.



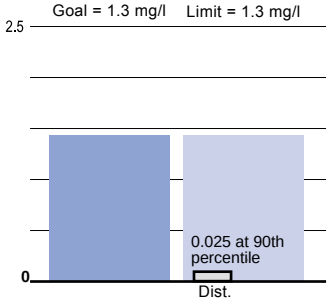
Chromium

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



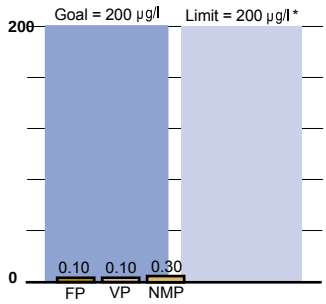
Coliform

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



Copper

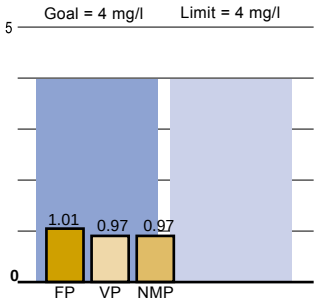
Units of measure: **mg/l:** Milligrams per liter.
Source: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.



Dalapon

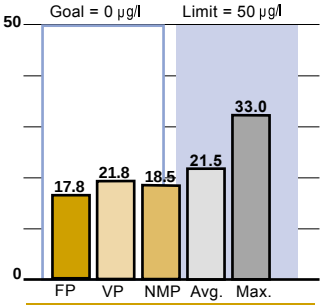
Units of measure: **µg/l:** Micrograms per liter.
Source: Herbicides on orchards, beans, coffee and lawns. Also roadways and railways.

Charlotte-Mecklenburg Utilities provides high quality



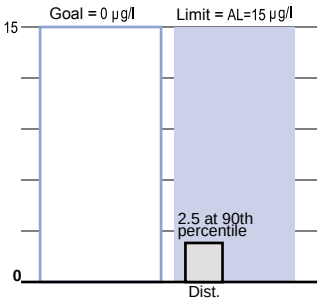
Fluoride

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



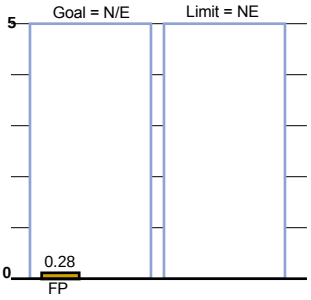
HAAs (Haloacetic Acid)

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.**



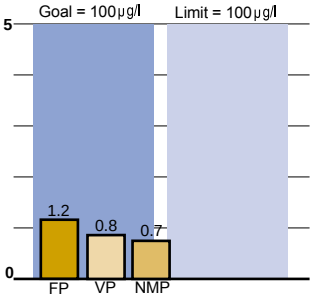
Lead

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



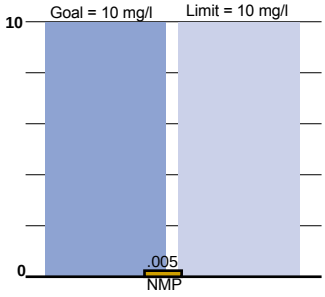
NDMA

Units of measure: **ng/l:** Nanograms per liter.
Source: By-product of drinking water chlorination.



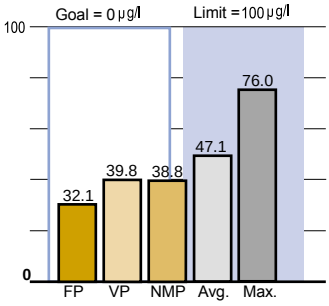
Nickel

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



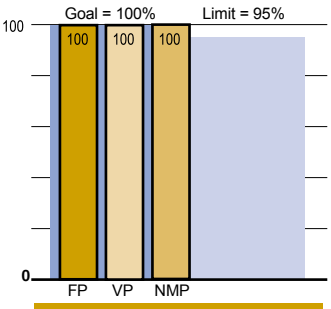
Nitrate

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



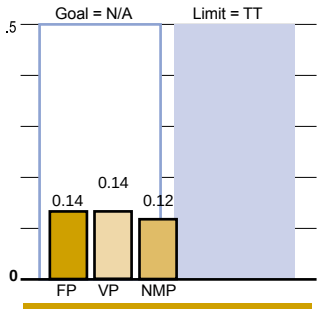
THMs (Trihalomethanes)

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.**



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.

Radon Information

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that also may be found in drinking water and indoor air. Exposure to elevated radon levels in drinking water over many years may increase the risk of cancer, but radon exposure typically occurs through the air and is more of an issue in indoor air from soil under homes.

While not required to test for radon, Charlotte-Mecklenburg Utilities collected water samples from our distribution system and analyzed them during 2001. The average sample measured at 5.1 PicoCuries/liter (pCi/l) and the single highest maximum reading measured at 20.2 pCi/l. By comparison, the drinking water limit for radon is 300 pCi/l. If you have questions about radon, please contact the EPA Safe Drinking Water Hotline at (800) 426-4791.

water with contaminant levels below government limits.

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.

Return to Reporting Compliance Notice

Charlotte-Mecklenburg Utilities prints and mails copies of this report to well over 300,000 addresses in Mecklenburg County before the July 1 deadline each year.

However, Charlotte-Mecklenburg Utilities received a compliance violation notice last year because a copy of its 2000 Water Quality Report had not been submitted the N.C. Department of Environment and Natural Resources (NCDENR) office by July 1, 2001 as required.

Copies were submitted later in July 2001, and state officials have since coded the violation as 'return to compliance.' Future editions of the annual Water Quality Report will be submitted before July 1.