

# Our Commitment to you...

## Quality Drinking Water...

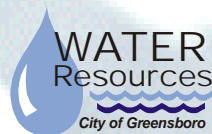
The City of Greensboro has been providing water service for nearly one hundred years.



We are pleased to report that our testing shows the excellent quality of our water and that we meet or exceed all State and Federal drinking water standards.



Your Water Resources Department is proud to present you with the "Consumer Confidence Report" for 2000. We are committed to providing our customers with the best quality of water possible.



**P. O. Box 3136  
Greensboro, NC 27402**

### 1. Is our water hard?

No. Water hardness is a measure of two minerals - calcium and magnesium. These minerals make it difficult for soap to form a lather in hard water. Water is considered hard if it contains more than 125 parts per million (ppm) or 7.5 grains per gallon (gpg). Our water has a hardness measure of 30 - 50 ppm or 2 - 3 gpg. This is considered moderately soft.

### 2. Why is fluoride added to our water?

Fluoride is added to our water to help prevent dental problems. Greensboro's water customers have been receiving fluoridated water since 1955. The level of fluoride in your water is 1 ppm, which is equivalent to one drop in ten gallons of water. Fluoride levels are monitored by the NC Department of Environment and Natural Resources.

### 3. Why is chlorine added to our water?

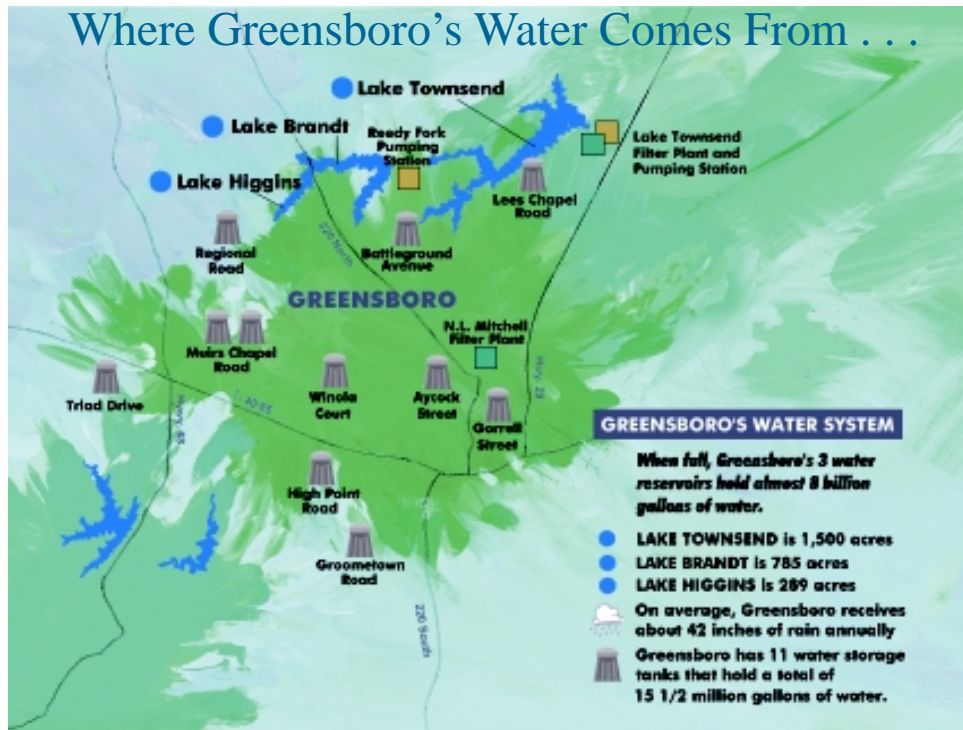
Chlorine is added to water to protect against potential bacterial contamination. The addition of chlorine can produce disinfection by-products when it reacts with organic materials in the water to form Trihalomethanes (THMs). High concentrations of THMs are considered potential cancer causing compounds and are regulated. Quarterly testing for these compounds is conducted and levels detected are below the limit.

### 4. What affects the taste of my water?

Seasonal changes in temperatures can affect the taste of our water. In spring and fall, rapid changes in temperature create convection currents which causes water to turn over and bring up silt from the bottom. This can cause a temporary musty taste until the lake stratifies again. This musty taste usually lasts for about two weeks in the spring and fall and clears up once the lakes have settled. The musty taste, while difficult to remove, does not present a health risk.

The presence of chlorine can also affect the taste of our water. Chlorine levels are equalized throughout our water system, and the amount of chlorine added to the water is adjusted seasonally due to water demand. To eliminate the chlorine taste, fill a pitcher of water and allow it to sit in the refrigerator for several hours.

## Where Greensboro's Water Comes From . . .



All of our water comes from **surface sources** (impounded reservoirs) within a **protected watershed**. Our water sources are the **Lake Higgins**, **Lake Brandt** and **Lake Townsend Reservoirs** which are fed primarily by **Reedy Fork Creek**. We are on the **Upper Cape Fear River Basin**.

**PWSID # 02-41-010**

If you have questions about this report or concerning your water utility, please contact :

**James Moorefield**  
Water Supply Manager  
373-5855



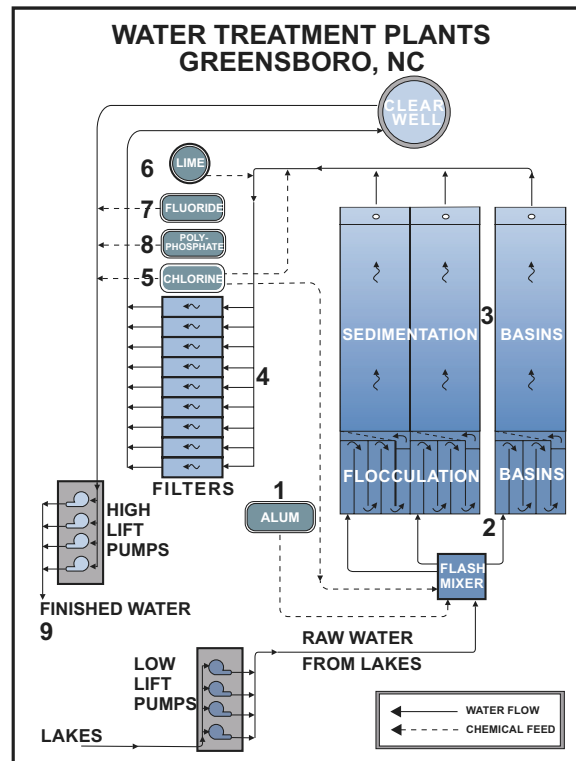
**Doug Robbins**  
Laboratory Supervisor  
375-2227

[jim.moorefield@ci.greensboro.nc.us](mailto:jim.moorefield@ci.greensboro.nc.us)

[doug.robbs@ci.greensboro.nc.us](mailto:doug.robbs@ci.greensboro.nc.us)

## HOW YOUR WATER IS TREATED...

(1) Liquid alum is added to the raw water and is rapidly mixed to cause coagulation. The water is conveyed to a (2) flocculation basin where the coagulated particles grow and the clarification of the water begins. (3) Sedimentation basins allow the coagulated material to settle and the clarified water is filtered through (4) sand and anthracite filters for removal of all remaining turbidity. (5) Sodium hypochlorite, a chlorine solution, is added for disinfection to guarantee bacteriologically safe water. (6) Lime is added for pH adjustment and (7) hydrofluosilic acid is added as a fluoride source to retard dental decay. Finally a (8) phosphate is added to retard the corrosive nature of water. The product is the (9) finished water that is transported to your tap.



Citizens who wish to have public input regarding water quality issues may attend Greensboro City Council meetings, held at 6:00 p.m. on the first and third Tuesday of each month, at the Melvin Municipal Office Building, 300 W. Washington Street.

**En Espanol**  
**Este informe contiene informacion muy importante. Traduzcalo o hable con un amigo quien lo entienda bien.**

**During 2000 the Water Resources Department monitored and tested for over 120 different regulated and unregulated substances in the water supply, including microbiological, radiological, inorganic, synthetic organic, and volatile organic contaminants.**

This table shows the results of our monitoring for the period of January 1 to December 31, 2000 and the most recent test results of contaminants that were not due to be tested in 2000. **Only contaminants actually detected are listed.** Information on other monitored contaminants and the Water Resources Department's monitoring program may be obtained by calling the Townsend Water Laboratory at 375-2227.

| REGULATED CONTAMINANTS   |               |  |                  |  |                                     |   |
|--|---------------|--|------------------|--|-------------------------------------|---|
| Contaminant  | Violation Y/N | Level Detected                           | Unit Measurement | MCLG   | MCL                                 | Likely Source of Contamination  |
| <b>Turbidity</b>   | <b>no</b>     | <b>T</b> .37<br><b>M</b> .46<br><br>100% | <b>NTU</b>       | N/A  | TT = 5                              | Soil runoff   |
|  |               |  |                  |  | TT = percentage of samples <0.5 NTU |   |
| <b>Nitrate</b>   | <b>no</b>     | <b>T</b> ND<br><b>M</b> 0.26             | <b>ppm</b>       | 10   | 10                                  | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                               |
| <b>Radioactive Contaminants</b><br><b>Sampled 3-30-99 (Most recent analysis prior to 12-31-00)</b> |               |  |                  |  |                                     |   |
| <b>Gross Beta</b>  | <b>no</b>     | <b>T</b> 1.8<br><b>M</b> 2.6             | <b>pCi/liter</b> | none   | 50                                  | Decay of natural and man-made deposits  |
| <b>Inorganic Contaminants</b><br><b>Sampled 3-21-00</b>  |               |  |                  |  |                                     |   |
| <b>Barium</b>  | <b>no</b>     | <b>T</b> .024<br><b>M</b> .027           | <b>ppm</b>       | 2  | 2                                   | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                                |
| <b>Fluoride</b>  | <b>no</b>     | <b>T</b> 0.81<br><b>M</b> 0.88           | <b>ppm</b>       | 4  | 4                                   | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| <b>Volatile Organic Contaminants and Disinfection By-Products</b><br><b>2000 Annual Average</b>    |               |  |                  |  |                                     |   |
| <b>TTHM</b><br>[Total trihalomethanes]   | <b>no</b>     | 58.3*                                    | <b>ppb</b>       | 0  | 80                                  | By-product of drinking water chlorination   |
| <b>Range: 2000 Maximum</b>   |               | 101.1                                    | <b>ppb</b>       | <b>Note:</b> These results represent the <b>yearly running average</b> (*), <b>maximum</b> measured level and <b>minimum</b> measured level of <b>Total Trihalomethanes</b> from <b>eight</b> sampling points in our distribution system measured <b>quarterly</b> . |                                     |   |
| <b>2000 Minimum</b>  |               | 33.8                                     | <b>ppb</b>       |  |                                     |   |
| <b>Haloacetic Acids</b><br>[Total HAA]   | <b>no</b>     | 49.3*                                    | <b>ppb</b>       | 0  | 60                                  | By-product of drinking water chlorination   |
| <b>Range: 2000 Maximum</b>   |               | 73.8                                     | <b>ppb</b>       | <b>Note:</b> These results represent the <b>yearly running average</b> (*), <b>maximum</b> measured level and <b>minimum</b> measured level of <b>Haloacetic Acids</b> from <b>eight</b> sampling points in our distribution system measured <b>quarterly</b> .      |                                     |   |
| <b>2000 Minimum</b>  |               | 29.4                                     | <b>ppb</b>       |  |                                     |   |



In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Greensboro's water is regularly tested and monitored by highly skilled water treatment professionals.

### DEFINITIONS

**T** indicates Townsend Water Treatment Plant  
**M** indicates Mitchell Water Treatment Plant

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

**Maximum Contaminant Level** - 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 treatment technology.

**Maximum Contaminant Level Goal** - 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.

**ND (Non-Detects)** - laboratory analysis indicates that the constituent is not present.

**NTU** - Nephelometric Turbidity Units; measures the cloudiness in water

**Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million

**Parts per billion (ppb) or Micrograms per liter** - one part per billion

**pCi/liter** - Picocuries per liter is a measure of the radioactivity in water

**TT** - Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water

**Lead and Copper Monitoring**  
Last Sampled June - September 1998 (next in 2001)

| Contaminant   | 90th Percentile | Action Level | Unit Measurement | Likely Source of Contamination           |
|---------------|-----------------|--------------|------------------|--|
| <b>Lead</b>   | ND              | 15           | <b>ppb</b>       | Customer plumbing and service connection |
| <b>Copper</b> | 0.110           | 1.3          | <b>ppm</b>       | Customer plumbing and service connection |

**Note:** Samples for **Lead and Copper Monitoring** were collected from specific sample sites meeting the EPA criteria (single-family homes with lead-soldered copper plumbing built prior to 1987). The data indicate that our **corrosion control program is functioning effectively** preventing lead and copper contamination from domestic plumbing.

**UNREGULATED CONTAMINANTS**

| Contaminant | Detect Y/N | Level Detected | Unit Measurement | Likely Source of Contamination |
|-------------|------------|----------------|------------------|--------------------------------|
|-------------|------------|----------------|------------------|--------------------------------|

**Volatile Organic Contaminants**  
Sampled 3-22-00

|                             |     |                                |            |   |
|-----------------------------|-----|--------------------------------|------------|---|
| <b>Chloroform</b>           | yes | <b>T 24.0</b><br><b>M 16.1</b> | <b>ppb</b> | By-product of drinking water chlorination |
| <b>Bromodichloromethane</b> | yes | <b>T 4.3</b><br><b>M 3.2</b>   | <b>ppb</b> | By-product of drinking water chlorination |
| <b>Chlorodibromomethane</b> | yes | <b>T .60</b><br><b>M .60</b>   | <b>ppb</b> | By-product of drinking water chlorination |

**Inorganic Contaminants**  
Sampled 3-21-00

|                |     |                            |            |                                     |
|----------------|-----|----------------------------|------------|-------------------------------------|
| <b>Sulfate</b> | yes | <b>T 14</b><br><b>M 19</b> | <b>ppm</b> | Naturally occurring mineral in soil |
|----------------|-----|----------------------------|------------|-------------------------------------|

As you can see by the table, our system had **NO VIOLATIONS**. We have learned through our monitoring and testing that some constituents have been detected. None of the detected contaminants were found in amounts exceeding the maximum contaminant level or action level established by the EPA. **We're proud that your drinking water meets or exceeds all Federal and State requirements.**

As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and radioactive material, and can be polluted by animals or human activity. Contaminants that might be expected in untreated 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 radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791**. Customers with **Internet access** should visit the **EPA Website** at <http://www.epagov/safewater/mcl.htm> for additional information.

During 2000 the City of Greensboro purchased minimal amounts of water from the cities of Reidsville and Winston-Salem. To obtain Water Quality Reports from these systems please contact the **Reidsville Public Works Department at (336) 349-1070** and the **City of Winston-Salem Utilities Division at (336) 727-8418**.

**CRYPTOSPORIDIUM**

**Cryptosporidium** is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. The public can be protected by an effective treatment combination including sedimentation, filtration, and disinfection.

**Cryptosporidium Monitoring**  
Last Sampled January – December 1998

**Note:** During 1998, **monthly samples** were taken at the **raw (untreated water)** intakes at the **Lake Townsend** and **Lake Brandt** reservoirs. These were analyzed for **Cryptosporidium** and **Giardia llambia**. There were **no detects** above the **minimum detection limits** of the analytical technique. Since no organisms were detected in the **untreated water**, testing of the treated water was not required.

For additional information visit the **CDC Website** at <http://www.cdc.gov/ncidod/dpd/crypto.htm>

**SPECIAL INFORMATION AVAILABLE**

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by **Cryptosporidium** and other microbiological contaminants are available from **the Safe Drinking Water Hotline (800-426-4791)**.

**WATER IS A PRECIOUS AND LIMITED RESOURCE.**  
**PLEASE HELP US CONSERVE OUR WATER SUPPLY.**

**WATER SAVING TIPS**

- ◆ Turn off the water while shaving, brushing your teeth, and washing the dishes.
- ◆ If your home was built before 1994, install a water-saving showerhead. Free water-saving showerheads are available at all Greensboro Public Libraries and Recreation Centers.
- ◆ If your toilet 'runs' when it's not in use, fix it! A leaky toilet wastes more than 50 gallons of water per day.
- ◆ Step on your grass to see if it needs water. If it springs back, it doesn't need to be watered.
- ◆ Consider planting less grass. Shrubs and ground covers require less maintenance and water. Use mulch around plantings to minimize evaporation.

**WATERWISE HOTLINE 373-7610**

For additional information visit the **City of Greensboro website** at [www.ci.greensboro.nc.us/wateres/H2OSupply/supply.htm](http://www.ci.greensboro.nc.us/wateres/H2OSupply/supply.htm)