

Greensboro Water Resources Department

Water Quality Report for 1998

August 1999

TESTS SHOW.... IT'S CLEAN.... IT'S SAFE.... IT'S QUALITY ON TAP!

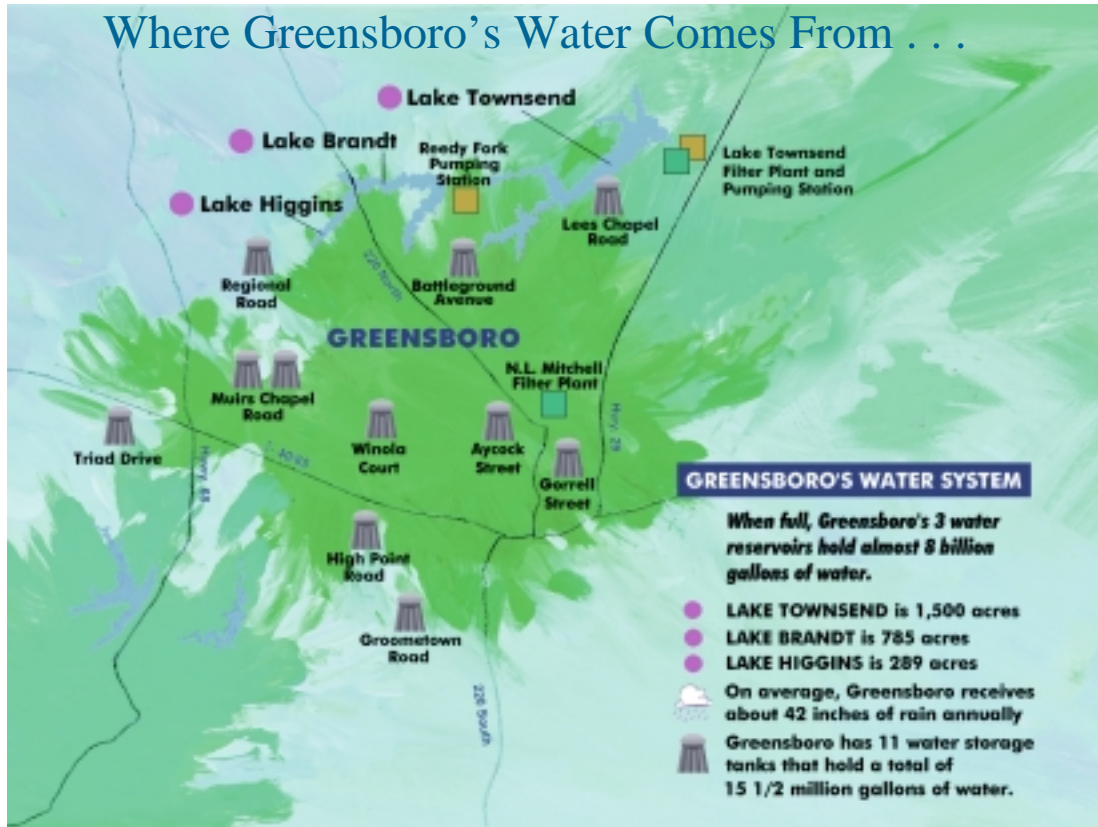
The City of Greensboro has been providing water service for nearly one hundred years. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Your Water Resources Department is proud to provide you with this year's Annual Water Quality Report. We are committed to providing our customers with a safe and dependable supply of drinking water. To ensure this goal, Greensboro's water is regularly tested and monitored by highly skilled water treatment professionals. We are pleased to report that our testing shows the excellent quality of our water.

We want our customers to be informed consumers. The purpose of this report is to provide you with the specific information you need to make an informed judgement about the water you receive from the City of Greensboro. This report will discuss the source of the City's drinking water, the treatment methods used and drinking water quality results that have been prepared for your review.

It is important that you have confidence in our long-standing tradition of continually improving the water treatment process. You will find that our drinking water is safe and that we continually meet or exceed all State and Federal drinking water standards. Our goal has always been to provide you with the best quality of water possible.



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**, at 373-5855 or **Doug Robbins, Laboratory Supervisor**, at 375-2227.



En Espanol

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

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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.

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

T indicates Townsend Water Treatment Plant

M indicates Mitchell Water Treatment Plant

The Greensboro Water Resources Department routinely monitors for contaminants in your drinking water according to State and Federal Laws. This table shows the results of our monitoring for the period of **January 1st through December 31st, 1998** and the most recent test results of contaminants that were not due to be tested in 1998.

TEST RESULTS OF DETECTED CONTAMINANTS

REGULATED CONTAMINANTS

Microbiological Contaminants 1998

Note: There were a total of **1440** Microbiological compliance samples collected from Distribution monitoring points in 1998. There were **no detects (positive samples)** for either **Total Coliform** or **Fecal Coliform**.

Radioactive Contaminants Sampled 3-21-95 (most recent analysis prior to 12-31-98)

Note: Samples for **Gross Alpha** and **Gross Beta** determination show **no detected radiation** at the confidence interval of the analysis.

Inorganic Contaminants Sampled 3-24-98

Contaminant	Violation Y / N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Barium	no	T .023 ----- M .020	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	no	T 0.79 ----- M 0.82	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Thallium	no	T 1 ----- M ND	ppb	0.5	2	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories

Note: Samples for all other **Regulated Inorganic Contaminants** taken for compliance analysis showed **no detects** for any of the regulated contaminants.

Synthetic Organic Contaminants including Pesticides and Herbicides Sampled 5-12-97 (most recent analysis prior to 12-31-98)

Note: Samples for all **Regulated Synthetic Organic Contaminants** showed **no detects** for any of the regulated compounds.

Volatile Organic Contaminants 1998 Annual Average

Contaminant	Violation Y / N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
TTHM [Total trihalomethanes]	no	52.1*	ppb	0	100	By-product of drinking water chlorination
Range: 1998 Maximum		90.3	ppb	Note: These results represent the yearly running average (*) , maximum measured level and minimum measured level of Total Trihalomethanes from eight sampling points in our distribution system measured quarterly .		
1998 Minimum		23.1	ppb			

UNREGULATED ORGANIC CONTAMINANTS

Unregulated Synthetic Organic Contaminants Sampled 5-12-97 (most recent analysis prior to 12-31-98)

Note: Samples for all **Unregulated Synthetic Organic Contaminants** showed **no detects** for any of the unregulated compounds.

Unregulated Volatile Organic Contaminants Sampled 3-25-98

Contaminant	Detect Y/N	Level Detected	Unit Measurement	Likely Source of Contamination
Chloroform	yes	T 20.2 ----- M 24.9	ppb	By-product of drinking water chlorination
Bromodichloromethane	yes	T 2.74 ----- M 3.23	ppb	By-product of drinking water chlorination

Note: Samples for all other **Unregulated Volatile Organic Contaminants** taken for compliance analysis showed **no detects** for any of the regulated contaminants.

Lead and Copper Monitoring Sampled June - September 1998

Contaminant	90th Percentile	Action Level	Unit Measurement	Likely Source of Contamination
Lead	ND	15	ppb	Customer Plumbing and service connection
Copper	0.110	1.3	ppm	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** in preventing lead and copper contamination from domestic plumbing.

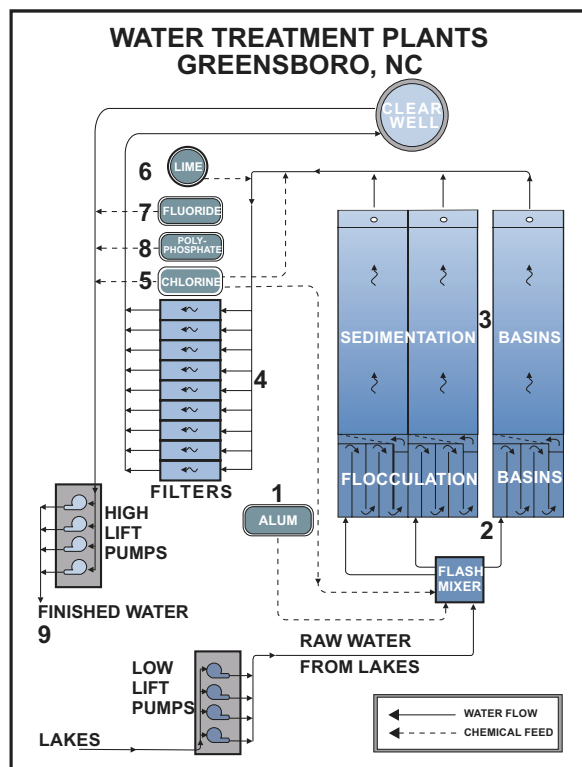
NONE OF THE DETECTED CONTAMINANTS WERE FOUND IN AMOUNTS EXCEEDING THE MAXIMUM CONTAMINANT LEVEL OR ACTION LEVEL ESTABLISHED BY THE EPA.

NOTE: 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.

As you can see by the table, our system had **NO VIOLATIONS**. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. **The EPA has determined that your water IS SAFE at these levels.**

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) Chlorine is added for disinfection to guarantee bacteriologically safe water. (6) Lime is added for pH adjustment and (7) hydrofluosilicic 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.



All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 the months of November and December the City of Greensboro purchased water from the cities of High Point and Winston-Salem. To obtain Water Quality Reports from these systems please contact the **City of High Point Public Services Department at (336) 883-3410** and the **City of Winston-Salem Utilities Division at (336) 727-8418**.

Citizens who wish to have public input regarding Water Quality issues may attend Greensboro City Council meetings, held the first and third Tuesday of each month at the Melvin Municipal Office Building, 300 W. Washington Street.

For additional information visit the **City of Greensboro Website** at <http://www.ci.greensboro.nc.us/wateres/H20Supply/supply.htm>

We at the **Greensboro Water Resources Department** work around the clock to provide top quality water to every tap. We are responsive to the needs of the entire community and strive to maintain, preserve and conserve our water resources in order to ensure quality water and adequate supply for future generations.



Water is a precious and limited resource. We ask that you do your part to help protect and conserve our water supply.

For information about **WATER CONSERVATION** please call our **WaterWise Hotline at 373-7610**.

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)**.

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

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 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 lamblia**. 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.