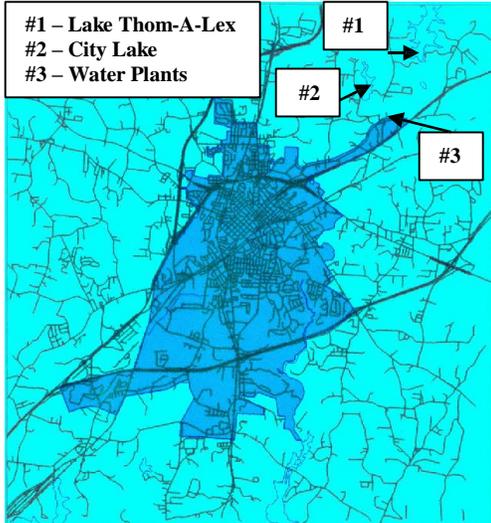


# 2015 Annual Drinking Water Quality Report

Best Tasting Water in NC in 1991 and 1995; Second Place in 2002

Information on Lexington's Drinking Water Produced in 2015  
North Carolina Public Water Supply I.D. #NC0229010

This brochure is a summary of the quality of water provided by the City of Lexington to its customers from January 1 through December 31 of 2015. It is a record reflecting the hard work of the employees involved in treatment and distribution of drinking water and an affirmation of the City's commitment to provide a safe and reliable supply of water to its customers.



**Sources of Lexington's drinking water:** The Cities of Lexington and Thomasville share Lake Thom-A-Lex as a water supply. It is classed as a surface water supply. The lake was constructed in the 1950's and has been the regular source of Lexington's drinking water since then. The lake initially held 2.2 billion gallons of water. Since the lake was built, silt has claimed less than 10% of its capacity. The City of Lexington has installed an aeration system in the lower part of the lake to improve water quality.

**In emergencies,** the City has two emergency supplies: City Lake, which contains about 150 million gallons of water, and several interconnections with Davidson Water, Inc. Water must be pumped from City Lake to Lexington's Water Plants. The interconnections with Davidson Water, Inc. provide an opportunity for the two water systems to support each other in emergencies.

Lexington's water is treated by two plants located on the same site off Old Greensboro Road at Business I-85. The older plant was built in 1922 and has had several expansions

and upgrades over the years. The newer plant was built in 1967. Together, they are pumping an average of 3 million gallons of water a day with the capability of pumping over 9 million gallons a day. Up to 3 million gallons of treated water is stored at the water plants at any time for emergency use. The quality of treated water from both plants exceeds state and federal regulations.



## Questions, Complaints, Emergency's:

- Emergencies: after hours 248-2337
- Emergencies: regular hours 248-3930
- Questions: regular hours 248-3930
- Website: [www.lexingtonnc.gov/](http://www.lexingtonnc.gov/)
- Email: [wskimbrell@lexingtonnc.gov](mailto:wskimbrell@lexingtonnc.gov)
- Complaints: regular hours 248-3930

**Distribution System:** City personnel maintain more than 192 miles of water lines, over 10,000 water meters, and 3 elevated storage tanks holding up to 2 million gallons of treated water between them. Water meters are read and billed monthly.

**Public comment** is welcome at the regularly scheduled meetings of the Lexington Utilities Commission and the Lexington City Council. The Utilities Commission has its regular meeting on the first Monday of each month. Its meetings are held at Lexington's City Hall located at 28 West Center Street starting at 4:00 P.M. The City Council has its regularly scheduled meetings on the second and fourth Mondays of each month. Those meetings are held at Lexington's City Hall starting at 7:00 P.M.





**Old City Lake Dam**



**Lake Thom-A-Lex**

### **What EPA Wants You to Know**

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 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 (800-426-4791).

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 persons and infants - can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the EPA's Safe Drinking Water Hotline at 800-426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Lexington is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested (the City is not certified to do this testing). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, 1-800-426-4791, or at <http://www.epa.gov/safewater/lead>.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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. These may be microbial contaminants, pesticides, herbicides, organic chemicals and radioactive contaminants. Lexington's water met all state and federal standards for these. Below are levels of these contaminants found in 2015.

**Table of Tested Contaminants**

Test	Violation Y/N	Level Detected	Average	Units	MCLG	MCL (*3)	Source
<b><u>Microbiological Testing</u></b>							
Total Coliform(*4)	N	ND			0	<5% of samples none	naturally present in the environment
Fecal Coliform	N	ND			0		naturally present in the environment
Turbidity	N	0.03-0.29	0.06	NTU's			soil runoff
<b><u>Radiological Testing</u></b>							
Alpha emitters	N	ND		pCi/l	0	15	erosion of natural deposits
Beta/photon emitters	N	4.26		mrem/year	0	50	erosion of natural deposits
<b><u>Inorganic Testing</u></b>							
Barium	N	ND	N/A	mg/l	2	2	drilling wastes; refineries; natural deposits
Copper	N	0.05-.297 (*2)	0.268	mg/l	1.3	1.3	corrosion and leaching of metal; wood preservatives
Fluoride	N	0.26 – 1.06	0.7	mg/l	4	4	natural deposits; water treatment additive
Lead	N	<3 (*2)	<3	ppb	0	15	corrosion of plumbing; erosion of natural deposits
Nitrate	N	ND (*2)	N/A	mg/l	10	10	fertilizer; treated sewage, erosion of natural deposits
<b><u>Organic Testing</u></b>							
2,4-D	N	ND	N/A	mg/l	0.007	0.007	herbicide
Atrazine	N	.0001	.001	mg/l	0.0002	0.003	pesticide
Dalapon	N	ND	N/A	mg/l	0.2	0.2	pesticide
Simazine	N	ND	ND	mg/l	0.004	0.004	pesticide
Di(2-ethylhexyl)phthalate	N	ND	N/A	mg/l	0	0.005	pesticide

<b><u>TTHM's - Phase II</u></b>	<b>2015</b>			
<b><u>Quarter</u></b>	<b><u>PPG B01</u></b>	<b><u>201 W 2'nd Ave B02</u></b>	<b><u>1914 Cotton Grove B03</u></b>	<b><u>405 Farmer B04</u></b>
<b>1'st</b>	0.0450	0.0280	0.0320	0.0340
<b>2'nd</b>	0.0610	0.0440	0.0510	0.0540
<b>3'rd</b>	0.0770	0.0620	0.0510	0.0620
<b>4'th</b>	0.0750	0.0530	0.0500	0.0650
<b>LRAA</b>	0.06450	0.04675	0.04600	0.05375
<b>LRAA limit</b>	0.08000	0.08000	0.08000	0.08000

<b><u>HAA5's - Phase II</u></b>	<b>2015</b>			
<b><u>Quarter</u></b>	<b><u>PPG B01</u></b>	<b><u>201 W 2'nd Ave B02</u></b>	<b><u>1914 Cotton Grove B03</u></b>	<b><u>405 Farmer B04</u></b>
<b>1'st</b>	0.0157	0.0262	0.0281	0.0321
<b>2'nd</b>	0.0000	0.0432	0.0489	0.0490
<b>3'rd</b>	0.0016	0.0398	0.0410	0.0402
<b>4'th</b>	0.0015	0.0521	0.0501	0.0306
<b>LRAA</b>	0.0047	0.040325	0.042025	0.037975
<b>LRAA limit</b>	0.0600000	0.0600000	0.0600000	0.0600000

\*1. Results reported as averages of 4 consecutive monitoring periods. \*2. Less than 10% of samples exceed the MCL. \*3. MCL's (maximum contaminant levels) are very stringent, a person would have to drink two quarts of water a day at the MCL level for a lifetime to have a one in a million chance of having the health effect ascribed to a contaminant. \*4. 2 positive samples were collected, neither was confirmed.

**Important Drinking Water Definitions:**

**Not-Applicable (N/A)** – Information not applicable/not required for that particular water system or for that particular rule.

**Non-Detects (ND)** - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology.

**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 (ug/L)** - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water.

**Nephelometric Turbidity Unit (NTU)** - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Locational Running Annual Average (LRAA)** – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

**Maximum Contaminant Level (MCL)** - 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 (MCLG)** - 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.

*En español: Para obtener más información sobre el agua potable o para obtener información sobre su cuenta de agua, por favor llame a la gerente de la oficina de la ciudad durante las horas de oficina en el teléfono 336-248-3910.*

**Source Water Assessment Program (SWAP) Results**

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 (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for Thom-A-Lex, Abbotts Creek, and City Lake were determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table below:

Source Name	Susceptibility Rating	SWAP Report Date
Lake Thom-A-Lex	Higher	7/6/2015
Abbotts Creek	Higher	7/6/2015
City Lake	Moderate	7/6/2015

The complete SWAP Assessment report for Thom-A-Lex, Abbotts Creek, and City Lake may be viewed on the Web at: [www.ncwater.org/pws/swap](http://www.ncwater.org/pws/swap). Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

**It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the system’s potential to become contaminated by PCSs in the assessment area.**

**Water Conservation Tips:**

- When you wash your car, park it in the grass, you’ll wash the car and water the grass at the same time.
- Repair dripping faucets. If the faucet is dripping at the rate of one drip per second, you will lose 2,700 gallons of water in a year.
- Run appliances only when you have a full load. These appliances waste large volumes of water when run partially loaded.
- The toilet uses more water than anything else in the house. Check for toilet leaks by periodically putting food coloring in the tank. If the color shows up in the bowl without flushing, you have a leak which needs to be repaired. Do not use the toilet as a wastebasket. Put your trash in the wastebasket.
- Set lawnmower blades 1 inch higher. Longer grass means less evaporation.
- Mulch, trees, and plants to reduce evaporation.
- Use a broom rather than a hose to clean your sidewalk or driveway.

## Protect your water supply and that of others!

Allow cooking grease to congeal and dispose of it in the trash instead of flushing it down the drain. Grease will solidify in sewer lines to block them and cause them to overflow onto the ground and into streams! **Storm drains do not discharge into the wastewater treatment plant. They discharge into streams.**

Protection of drinking water is everyone's responsibility. We have implemented the following source water protection actions: **NPDES Phase II Regulations per requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between North Carolina and the Us Environmental Protection Agency dated May 9 1994.** The City of Lexington was subject to Phase II requirements as of **June 3, 2015**, by the request of NCDENR. You can help protect your community's drinking water source(s) in several ways:

Chemicals, motor oil, trash, grass clippings, etc should not be dumped into storm drains or in locations where they may be washed into ditches or streams. Eventually these will pollute the water supply of someone downstream of you.

Be sure that your washing machine is discharging into a septic tank or sanitary sewer system instead of a creek.

Silt from runoff and trash thrown out onto the ground are some of the major contributors to pollution in High Rock Lake. High Rock Lake is a recreation lake, and water from the lake enters public water supplies downstream until it reaches the ocean. **Please be a source of the solution, not pollution.**

Any violations should be reported immediately to 336.248.3930 or [wskimbrell@lexingtonnc.gov](mailto:wskimbrell@lexingtonnc.gov) .



We at the City of Lexington work around the clock to provide top quality water to every tap. We ask all our customers help us protect our water sources. These are the heart of our community, our way of life and our children's future.