

Year 2010 Annual Water Quality Report

Lincoln County Water Department

Water System ID GA1810038

PO Box 340 • 182 Humphrey Street • Lincolnton, Georgia 30817 • (706) 359-5523

The Lincoln County Water Department is pleased to present a summary of the quality of water provided to you in the past year. Included in this report is important information with regard to your water quality: where it comes from, the parameters of detected contaminants, and how our water compares to those parameters as set by regulatory agencies. The contaminants that were detected in our drinking water are listed in this report.

Where does my water come from?

Lincoln County obtains its water from four municipal groundwater wells, and also purchases water from the City of Lincolnton (a copy of their CCR may be obtained from Lincolnton City Hall). The county wells, from 205 to 400 feet deep, are in the Piedmont Province Aquifer. The wells and Filter Plant are located on Double Branches Road near the intersection at Highway 47 (Augusta Highway). The well sites are monitored for activities which could potentially cause contamination of this water source. The well water is pumped to the Lincoln County Filter Plant where it is filtered for the removal of contaminants. Then chlorine disinfection is provided as well as fluoride treatment and tests are run daily. The quality water purchased from the City is pumped through a 12" ductile iron main to the Filter Plant and into the distribution system as needed to supplement the county's supply, making us a "blended" system.

The Source Water Assessment for the Lincolnton system has been completed. This purpose of the study is to identify potential sources of pollution within the drinking water source's watershed and to assess the watershed's susceptibility to contamination from potential pollution sources. The Wellhead Protection Plan, which assesses potential pollutant sources for the four active wells in Lincoln County (Water System ID 1810038), was completed in 1998. The system was determined to have a LOW susceptibility to pollution. A copy of the Wellhead Protection Plan may be obtained at the Lincoln County Courthouse or the Georgia Geologic Survey.

The Clarks Hill Reservoir (Soap Creek), serving the City of Lincolnton (Water System ID GA1810000), was determined to have a LOW overall pollution susceptibility ranking. Copies of the Source Water Assessment are available from the City of Lincolnton.

Why are there contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791).

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.

Lead in Drinking Water:

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. Lincoln County Water Department 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Contaminants that may be present in source water include the following:

- 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 storm 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 storm water 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 storm water runoff, and septic systems.
- 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

How can I learn more?

If there are any questions concerning this information, please contact Robert Seymour at the Lincoln County Water Department at 706-359-5523. The Water Department hours are 8 am to 5 pm, Monday through Friday. For after hour emergencies, please call the Lincoln County Public Safety at 706-359-5118. You may also contact the Safe Drinking Water Hotline referenced above. The Lincoln County Board of Commissioners meets on the second Thursday of every month at 7 pm in the Lincoln County Courthouse.

Spanish (Español)

Este informe contiene informacion muy importante sobre la calidad de su agua beber. Traduscalo o hable con alguien que lo entienda bien.

Situation

In July we were informed that one of our routine total coliform samples collected on June 28, 2010 was total coliform positive. As required by the Georgia Groundwater Rule, we collected samples from all three sources, Wells 103,104 and 107. They were analyzed for total and fecal coliform contamination. The sample for well 103 was positive for total coliform contamination and well 104 was positive for total and fecal coliform contamination.

Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. *Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.*

Upon receiving notice of the coliform contamination of wells 103 and 104, the well system was taken out of service and disinfected with chlorine. A boil water notice was issued at that time to the public. The wells were purged of chlorine and resampled for coliform bacteria. Once all subsequent analysis for coliform bacteria tested “absent” for the presence of the contaminates, the wells were placed into service and the boil water notice was lifted.

Source Water Quality Data

Contaminant	MCL/MRDL/TT	MCLG	Value	Date	Violation	Typical Sources
Fecal indicators (E. coli)	TT	N/A	Positive (E. coli)	July 13, 2010	No	Human & animal fecal waste

*System A detected E. coli in their source water sample; the sample was collected in response to a total coliform-positive routine sample collected on June 23, 2010. More information about this situation is provided in the Situation section.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	System	MCLG or MRDLG	MCL/ MRDL	Your Water	Low Value	High Value	Sample Date	Violation?	Typical Sources/Health Effects
Contaminant									
Total Coliform (# positive samples/mo)									Naturally present in the environment. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present
	Lincoln Co. Distribution System	0	1	1			2010	Yes	
	City of Lincoln Distribution System	0	1	0			2010	No	
Fecal coliform (# positive samples annually) ⁷		0	0	0			2010	Yes	Presence indicates that the water may be contaminated with human or animal waste.
Total Organic Carbon (TOC) ¹									Naturally present in the environment
	James Allen Reed WTP	NA	TT	1.15	0.86	1.34	2010	No	
Turbidity (NTU) ²									Soil Runoff
	James Allen Reed WTP	NA	1 NTU 95% <0.3	0.30 99.63	n/a	n/a	2009	No No	
Volatile Organic Contaminants (VOCs)									
TTHMs (Total Trihalomethanes) (ppb) ³									By-product of drinking water chlorination
	James Allen Reed WTP	NA	80	43.8	29.3	50.8	2010	No	
	Lincoln County	NA	80	8.2	ND	21	2010	No	
HAA5s (haloacetic acids) (ppb) ³									By-product of drinking water chlorination
	James Allen Reed WTP	NA	60	25.7	13.7	42.7	2010	No	
	Lincoln County	NA	60	0.9	ND	1.4	2010	No	
Chlorine (ppm) ⁴									Added to water for disinfection
	James Allen Reed WTP	4	4	0.64	0.20	1.40	2010	No	
	Lincoln County	4	4	1.76	1.72	1.79	2010	No	
Inorganic Contaminants (IOCs)									
Fluoride (ppm)									Erosion of natural deposits; water additive which promotes strong teeth
	Lincoln County	4	4	0.77	0.70	0.91	2010	No	
Lead (ppb) ^{5,6}									Corrosion of household plumbing; erosion of natural deposits. Infants and children who drink water containing lead in excess of the AL could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. ⁶
	Lincoln County	0	AL = 15	2.5	No samples exceeded the Action Level of 15		2007	No	
	City of Lincoln Distribution System	0	AL = 15	2.5	No samples exceeded the Action Level of 15		2007	No	
Copper (ppm) ⁵									Corrosion of household plumbing; erosion of natural deposits
	Lincoln County	1300	AL = 1300	230	n/a	n/a	2007	No	
	City of Lincoln Distribution System	1300	AL = 1300	68	n/a	n/a	2007	No	

¹ If TOC for filtered water is less than 2.0 mg/L, removal efficiency standards are not observed. See CFR 141.135(a)(2)(ii).

TT_{≥1} refers to the removal ratio, determined as (actual % removed) ÷ (required % removal).

² Turbidity has two maximum limits established by 40CFR141.73: No samples should be higher than 1 NTU and at least 95% of the samples should be less than 0.3 NTU. No samples exceeded the maximum of 1 NTU. The percentage of samples meeting the turbidity limits of 0.3 NTU as specified for filtration technology was 100%.

³ TTHMs and HAA5s values are the annual average for 2010.

⁴ The City of Lincoln post chlorinates its filtered water,

⁵ Represents the 90th percentile value.

⁶ Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

⁷ Microbes in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, and or other symptoms. They may pose a special health risk for infants, young children, some elderly, and people with severely compromised immune systems.

Unit Descriptions

<u>Term</u>	<u>Definition</u>
ug/L	ug/L: Number of micrograms of substance in one liter of water
mg/L	mg/L: Number of milligrams of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (ug/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the
positive	positive samples/month: Number of samples taken monthly that were
NA	NA: not applicable
ND	ND: Not detected

Important Drinking Water Definitions

<u>Term</u>	<u>Definition</u>
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial