

May 2012

The City of Thomasville's Department of Public Services is pleased to present to you the 2011 Annual Water Quality Report. This report is to inform you of the quality water and services we deliver to you every day. The City of Thomasville Water Treatment Plant is located at 200 Old Lexington Road. The Thomasville Water System serves approximately 26,000 people through approximately 10,000 water connections. Our surface water source is Lake Thom-A-Lex, which is part of a larger area called the Yadkin/Pee Dee River Basin.

The City's Department of Public Utilities routinely monitors for contaminants in the drinking water supplied to your home, in accordance with Federal and State Regulations. The table on the inside of this report shows the results of our monitoring of Regulated Contaminants for the period of January 1st to December 31st, 2011, along with the most recent results of contaminants not due to be monitored in 2011.

The Thomasville Public Utilities are a valuable asset to our city. All citizens can help us protect the system and infrastructure by joining us in safeguarding these valuable resources. Please inform us of any suspicious activities around Lake Thom-A-Lex, our treatment plant, water storage tanks, manholes, or fire hydrants by calling 336-475-4247 during or after normal business hours. After all, our customers are our best allies.

All of the information in this report is available at the City of Thomasville's website at www.thomasville-nc.gov. We want you to understand the efforts we make to continually improve and protect the water treatment process and our water resources. Please contact Billy King, Superintendent of Water at 336-475-4247, if you have any questions about this report or concerning your water quality. You are welcome to attend any of our regularly scheduled City Council Meetings, held at the City Council Chambers at 7 West Guilford Street on the third Monday of the month at 7:00 p.m. The Department of Public Services is committed to ensuring the quality of your water. We hope that this report answers your questions regarding the safety and dependability of our public water supply.

Sincerely,

Morgan Huffman,

Public Services Director

City of Thomasville
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Thomasville, NC 27360

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City of Thomasville



2011 Annual Water Quality Report

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REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	IN COMPLIANCE	SOURCE
Atrazine (ppb)	2011	3	3	0.12	NA	Yes	Runoff from herbicide used on row crops
Chlorine (ppm)	2011	[4]	[4]	2.0	0.2 – 3.1	Yes	Water additive used to control microbes
Fluoride (ppm)	2011	4	4	0.97	NA	Yes	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Simazine (ppb)	2011	4	4	0.15	NA	Yes	Herbicide runoff
Turbidity (NTU)*	2011	TT = 1 NTU	NA	0.28	0.04 – 0.28	Yes	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT = 95% of samples < 0.3 NTU	NA	100%	NA	Yes	Soil runoff
Total Organic Carbon (ppm)	2011	TT	NA	2.2	1.7 – 2.8	Yes	Naturally present in environment
HAAs [Haloacetic Acids] (ppb)	2011	60	NA	40.9	19 - 57	Yes	Byproduct of drinking water disinfectant
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	45.3	18 – 79	Yes	Byproduct of drinking water disinfectant
Radium (pCi/L)	2009	2	NA	1.0	NA	Yes	Erosion of natural deposits

*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

TAP WATER SAMPLES COLLECTED FROM 60 SITES THROUGHOUT COMMUNITY

SUBSTANCE	YEAR SAMPLED	AMOUNT DETECTED (90 th PERCENTILE)	ACTION LEVEL	SITES ABOVE ACTION LEVEL	IN COMPLIANCE
Lead (ppb)	2009	3	15	2	Yes
Copper (ppm)	2009	0.305	1.3	0	Yes

Definitions

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

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.

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 contaminants.

MRDLG (Maximum Residual Disinfectant 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 control microbial contaminants.

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

NA: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

UNREGULATED SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	SAMPLE DATE	AMOUNT DETECTED	RANGE LOW-HIGH	SECONDARY MCL
Sodium (ppm)	2011	29.68	NA	NA
Sulfate (ppm)	2011	32.6	NA	250

Cryptosporidium sp.

Cryptosporidium sp. is a microbial parasite which comes from animal waste and is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. When ingested, symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immunocompromised people have more difficulty and are at greater risk of developing severe, life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. A 24-month evaluation of Lake Thom-a-Lex was completed in 2009 which included monthly testing for Cryptosporidium sp. Although traces of this parasite have been detected in minute quantities, the concentration is low enough that no additional treatment is needed.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is available at <http://swap.deh.enr.state.nc.us/swap>. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. The assessment findings are summarized in the table below:

THOMASVILLE WATER SYSTEM SWAP RATINGS			
Source Name	Inherent Vulnerability	Contaminant	Susceptibility
Thom-A-Lex Lake	Moderate	Moderate	Moderate

Water Quality Sampling

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table presented herein shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

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).

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. We are 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>.

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 storm water 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; 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Special Health Concerns

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).