

“2013” Annual Drinking Water Quality Report

“Town of Wadesboro”

PWSID# “03-04-020”

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your source(s) of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information because informed customers are our best allies. **If you have any questions about this report or concerning your water, please contact Hugh James at (704)-694-5171. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at the Town Hall, the first Monday of every month.**

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, 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 microbial contaminants are available from the 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. The Town of Wadesboro 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>.

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

When You Turn on Your Tap, Consider the Source

The water that is used by this system is surface water from City Lake, a 100 acre lake.

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 CITY LAKE was 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:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
CITY LAKE	MODERATE	March 2010

The complete SWAP Assessment report for Wadesboro Municipal Lake may be viewed on the Web at: 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. Please indicate your system name, PWSID#, 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.

Violations that Your Water System Received for the Report Year

During (2013), or during any compliance period that ended in (2013), we received two monitoring violations that covered the time period of Jan.1 thru Dec.31 2013. See the following pages.

NOTICE TO THE PUBLIC

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

WADESBORO, TOWN OF HAS NOT MET MONITORING REQUIREMENTS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the compliance period specified in the table below, we ('did not monitor or test' or 'did not complete all monitoring or testing') for contaminants listed and therefore cannot be sure of the quality of your drinking water during that time.

CONTAMINANT GROUP	FACILITY ID NO./ SAMPLE POINT ID	COMPLIANCE PERIOD BEGIN DATE	NUMBER OF SAMPLES/ SAMPLING FREQUENCY	WHEN SAMPLES WERE OR WILL BE TAKEN (water system to complete)
Disinfection Byproducts (DBP'S)	D01	January 1, 2014	Quarterly	March, 2014

What should I do? There is nothing you need to do at this time.

What is being done? The samples were taken during the first quarter, but not at the time North Carolina, told us, which was the 1st week in February. The Town will follow the sampling plan in the future.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact:

Responsible Person Hugh James	System Name WADESBORO, TOWN OF	System Address (Street) 110 Hargrave St
Phone Number 704-694-5171	System Number NC0304020	System Address (City/State/Zip) Wadesboro, NC 28170

Violation Awareness Date: June 13, 2014

Date Notice Distributed: 6-27-14

Method of Distribution: Town website
cityofwadesboro.org

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Lead and Copper	D01	January 1, 2011	20 per 3-year	December, 2013

What should I do? There is nothing you need to do at this time.

What is being done? The samples were taken, but not in the 3rd quarter of 2013, as the state prescribed. We took them in the fourth quarter of 2013. The Town will follow the sampling plan in the future. Samples will be taken in the 3rd quarter of 2014.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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Phone Number 704-694-5171	System Number NC0304020	System Address (City/State/Zip) Wadesboro, NC 28170

Violation Awareness Date: March 27, 2014

Date Notice Distributed: 6-27-14

Method of Distribution: Town Website

cityofwadesboro.org

Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, (2013).** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

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 used.

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/L) - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/L) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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

Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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 which a water system must follow.

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

Maximum Residual Disinfection Level Goal (MRDLG) – 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.

Maximum Residual Disinfection Level (MRDL) – 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.

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.

Tables of Detected Contaminants

** The tables below, as well as Appendix A of the CCR Rule, indicate which unit of measurement must be used in the report. Appendix A of the CCR Rule shows the water system if and when to convert the reported result(s) to another unit of measurement and how to convert the result(s). Do NOT change the unit of measurements in the tables below.

**Microbiological Contaminants (in the Distribution System and/or the Source Water)

Remove any table that does not apply to the water system.

**For water systems that collect less than 40 samples per month:

Total coliform – Record the highest monthly number of positive samples in the column entitled “Your Water” and indicate if the system had an MCL violation.

Fecal/E coli – Record the total number of positive samples for the year in the column entitled “Your Water” and indicated if the system had an MCL violation.

Microbiological Contaminants in the Distribution System - For systems that collect *less than 40* samples per month)

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	one positive monthly sample	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (presence or absence)	N	0	0	0 (Note: The MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive)	Human and animal fecal waste

** For water systems that collect 40 or more samples per month:

Total coliform – Record the highest monthly number of positive samples in the column entitled “Your Water” and indicate if the system had an MCL violation.

Fecal/E coli – Record the total number of positive samples for the year in the column entitled “Your Water” and indicated if the system had an MCL violation.

** Turbidity:

**Record the highest single measurement for the report year and the lowest monthly percentage of samples meeting the turbidity limits. Remove the Turbidity table if not needed for your water system.

Turbidity*Systems with population less than 10,000

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Your Water	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	.27 NTU	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100 %	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	

Turbidity*

* 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.

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			

Fluoride (ppm)	5-9-13	N	.47	0-.65	4	4	
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Nitrate/Nitrite Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
			Low	High			
Nitrate (as Nitrogen) (ppm)	N	N/D	N/A		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	N	N/D	N/A		1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Special Note: If the water system’s nitrate result or nitrate average result is above 5mg/L (ppm). But below 10 mg/L (ppm), then the below language is required:

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Unregulated Inorganic Contaminants

Contaminant (units)	Sample Date	Your Water	Range		Secondary MCL
			Low	High	
Sulfate (ppm)	5-9-13	25.5	25.5-25.5		250

Asbestos Contaminant

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Total Asbestos (MFL)	12-27-12	N	<.1391	N/A		7	7	Decay of asbestos cement water mains; erosion of natural deposits

****Lead and Copper**

** For example: lead (action level is 15 ppb): Sample Date 12-9-13

Results: Site 1 = ND, Site 2 = ND, Site 3 = 8ppb, Site 4 = 12ppb, Site 5 = 19 ppb, Site 6 = 3 ppb, Site 7 = ND, Site 8 = ND, Site 9 = 4ppb and Site 10 = 22ppb

Report in table: 90th percentile (“Your Water” value) = 19 and the # of sites above the action level = 2 (have to convert lead from ppm to ppb.)

**For example: copper (action level is 1.3 ppm): Record the same as lead, but no conversion of units is required.

**If the system is required to only take 5 samples, calculate the average of the 2 highest results to get the 90th percentile “Your Water” value.

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	12-9-13	.142 ppm	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	12-9-13	N/D	0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

****Radionuclides:**

**Recorded result should only be one result, but if taking quarterly samples or more than one sample was taken for some reason, average the results for each quarter, then average the 4 quarters to get the running annual average (RAA) for “Your Water” value. If the lab did a composite sample, then no averaging is needed; use the composite results provided by the lab.

Radioactive Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	11-21-13	N	N/D	0	15	Erosion of natural deposits
Combined radium (pCi/L)	11-21-12	N	N/D	0	5	Erosion of natural deposits
Uranium (pCi/L)	11-21-13	N	N/D	0	20.1	Erosion of natural deposits

* Note: The MCL for beta/photon emitters is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

****Total Organic Carbon (TOC):**

**TOC removal is REQUIRED for all surface water and groundwater under the direct influence of surface water GWUDI systems using conventional filtration, regardless of population served. The system should report the TOC Ratio, both raw and treated, by providing the running annual average ratio in the column entitled “Your Water”, and the highest and lowest monthly removal ratios in the column entitled “Range.” In the last column entitled “Compliance Method,” provide the method used to comply with the D/DBP treatment technique requirements.

Total Organic Carbon (TOC)

Contaminant (units)	TT Violation Y/N	Your Water (RAA Removal Ratio)	Range Monthly Removal Ratio Low - High	MCLG	TT	Likely Source of Contamination	Compliance Method (Step 1 or ACC# __)
Total Organic Carbon (removal ratio) (TOC)-TREATED	N	1.14	1.05-1.36	N/A	TT	Naturally present in the environment	Step 1 and

STEP 1 TOC Removal Requirements

Source Water TOC (mg/L)	Source Water Alkalinity mg/L as CaCO3 (in percentages)		
	0 - 60	> 60-120	> 120
> 2.0 - 4.0	35.0	25.0	15.0
> 4.0 - 8.0	45.0	35.0	25.0
> 8.0	50.0	40.0	30.0

Alternative Compliance Criteria (ACC)

Alt. 1	Source Water TOC < 2.0 mg/L
Alt. 2	Treated Water TOC < 2.0 mg/L
Alt. 3	Source Water SUVA ≤ 2.0 L/mg-m
Alt. 4	Treated Water SUVA ≤ 2.0 L/mg-m
Alt. 5	Treated Water Alkalinity < 60 mg/L (for softening systems only)
Alt. 6	THM & HAA RAA's ≤ 1/2 MCL & uses only chlorine
Alt. 7	Source TOC RAA < 4.0 mg/L and Source Alkalinity > 60 mg/L and THM & HAA RAAs ≤ 1/2 MCL

****For Disinfectants and Disinfection Byproducts:**

**Record the highest running annual average (RAA) in “Your Water” column for Stage 1 compliance data. Record the range of the lowest to highest single sample result.

**Chlorite samples should be collected at the entry point (EP) and three points in the distribution system to get the three sample set averages for “Your Water” value. If any EP chlorite samples is >1.0 mg/L (ppm), three distribution samples must be taken the next day and this average would be the “Your Water” value on the table.

**Chlorine Dioxide is sampled at the EP and compliance is based on the results of 2 consecutive daily samples.

**All other disinfectants and disinfection by products contaminants are sampled in the distribution, and the “Your Water” value is based on the RAA (the highest average of all sample points). The range should be lowest to highest results of all compliance samples taken for that contaminant.

**For chloramines and chlorine residuals, these values can be found on the Monthly Distribution Bacteriological Analysis Summary form (for larger systems), and on the monthly Bacteriological Analysis form (for smaller systems).

Disinfectants and Disinfection Byproducts Contaminants

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water RAA (Stage 1)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	N	4	6 - 59	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	4	4 - 64	N/A	60	By-product of drinking water disinfection
Chloramines (ppm)	N	2.31	1.95-2.55	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Chlorine (ppm)	N	.09	.06-.21	MRDLG = 4	MRDL = 4	Water additive used to control microbes

** Special Note: If TTHMs are detected in any individual sample above 0.080 mg/L (ppm), or if HAA5s are detected in any individual sample above 0.060 mg/L (ppm), the corresponding health effects language below is required, even if their running annual averages (RAAs) are below their MCLs of 0.080 mg/L (for TTHM) or 0.060 mg/L (for HAA5).

For TTHM: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

For HAA5: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

** If the water system participated in the Information Collection Rule (ICR) and/or the UCMR (where the water system reported directly to EPA), any detected results must be included in the report.

**Additional contaminants that can be included in the report:

The PWSS requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

Contaminant (units)	Sample Date	Your Water	Range Low/High	SMCL
Iron (ppm)	5-9-13	.118 mg/L	0-.05	0.3 mg/L
Manganese (ppm)	5-9-13	.050	.02-59	0.05 mg/L
Nickel (ppm)	5-9-13	N/D	N/A	N/A
Sodium (ppm)	5-9-13	12.050	N/A	N/A
Sulfate (ppm)	5-9-13	25.5	N/A	250 mg/L
pH	5-9-13	6.9	6.9-7.5	6.5 to 8.5

Other Miscellaneous Water Characteristics Contaminants