2008 Annual Drinking Water Quality Report
Spring Lake Water System
PWS ID# 03-26-020

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 from where your water comes, 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 Daniel Gerald (910) 497-3390. We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at the Spring Lake Town Hall on 2nd and 4th Mondays of each month at 7:00 PM.**

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 microbiological contaminants are available from the 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. 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.

When You Turn on Your Tap, Consider the Source
The water that is used by this system is purchased from Fayetteville PWC and Harnett County both entities get their source water from the Cape Fear River.

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 the Spring Lake Water System 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
Fayetteville Public Works Commission	Higher	March 11, 2005
Harnett County Public Utilities	Higher	March 18, 2005

The complete SWAP Assessment report for the Spring Lake Water System may be viewed on the Web at: http://www.deh.enr.state.nc.us/pws/swap Please 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@ncmail.net. 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 919-715-2633.

It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the systems' potential to become contaminated by PCS's in the assessment area.

Violations that Your Water System Received for the Report Year

Town of Spring Lake received one violation for trihalomethanes. This error occurred because of a flaw in the spread sheet program. This discrepancy has been isolated and corrected. The trihalomethane parameter is a running average of samples collected in a 4 month quartering period. The town is required to summit quarterly reviews to the state.

Water Quality Data Table 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, 2006.** The EPA or the State requires 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 regulation is 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.

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 treatment technique is 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.

Extra Note: MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Turbidity*- (Fayetteville-PWC) (Harnett County)

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	N	0.20	N/A	TT = 1 NTU	Soil runoff
		100%		TT = percentage of samples ≤ 0.3 NTU	

* 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 (Fayetteville-PWC) (Harnett County)

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	2/08	N	<0.4	0.013	-0.016	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	12/08	N	0.77	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Nitrate Contaminants (Fayetteville-PWC) (Harnett County)

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	2/08	N	<1.0	N/A		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Unregulated Inorganic Contaminants (Fayetteville-PWC) (Harnett County)

Contaminant (units)	Sample Date	Your Water	Range Low	Range High	Secondary MCL
Sulfate (ppm)	1/07	36.2	N/A		250

Unregulated VOC Contaminants (Fayetteville-PWC) (Harnett County)

Contaminant (units)	Sample Date	Your Water	Range Low	Range High
Chloroform (ppb)	11/08	31.89	18.59 - 51.20	
Bromodichloromethane (ppb)	11/08	21.34	5.71 – 38.60	
Bromoform (ppb)	11/08	8	<0.01 – 5.750	
Chlorodibromomethane (ppb)	11/08	12.62	1.50 – 15.00	

Asbestos Contaminant (Fayetteville_PWC) (Harnett County)

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Total Asbestos (MFL)	9/02	N	0.18	N/A		7	7	Decay of asbestos cement water mains; erosion of natural deposits

Lead and Copper Contaminants Spring Lake)

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90^{th} percentile)	6/08	0.099	None	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90^{th} percentile)	6/08	<0.2	None	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits

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).

Radioactive Contaminants (Fayetteville-PWC) (Harnett County)

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Beta/photon emitters (pCi/L)	11/05	N	5.2	0	50 *	Decay of natural and man-made deposits

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

Disinfection Byproduct Precursors Contaminants (Fayetteville-PWC) (Harnett County)

Contaminant (units)	TT Violation Y/N	Your Water (RAA removal Ratio-must be >1.0)	Range Monthly Removal Ratio	MCLG	MCL	Likely Source of Contamination	Compliance Method (Step 1 or ACC#__)
Total Organic Carbon (TOC)-TREATED	N	3.35	1.01-1.31	N/A	TT	Naturally present in the environment	Step 1

Note: Depending on the TOC in our source water, the system MUST have a certain % removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % removal, there is an alternative % removal. If we fail to meet the alternative % removal, we are in violation of a Treatment Technique.

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

Disinfectants and Disinfection Byproducts Contaminants (Spring Lake)

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	N	0.073	7.5-89.0	N/A	82	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	0.035	3.2-31.6	N/A	61	By-product of drinking water disinfection
Chloramines (ppm)	N	3.0	0.3-5.0	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Chlorine (ppm)	N	3.5	0.5-3.0	MRDLG = 4	MRDL = 4	Water additive used to control microbes

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.

Secondary Contaminants, required by the NC Public Water Supply Section, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water**.**

Water Characteristics Contaminants (Fayetteville-PWC)

Contaminant (units)	Sample Date	Your Water	Range Low/High	Secondary MCL
Iron (ppm)	1/4/08	0.005	N/A	0.3
Manganese (ppm)	1/4/08	0.01	N/A	0.05
Sodium (ppm)	1/4/08	25.7	N/A	N/A
pH	1/4/08	7.7	6.5 - 8.5	6.5 to 8.5

Cryptosporidium

Our system monitored for Cryptosporidium *and found levels of* < >.

Cryptosporidium *is a microbial parasite which 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. Our monitoring of our source water and/or finished water indicate the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised 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.* Cryptosporidium *must be ingested for it to cause disease, and it may be spread through means other than drinking water.*

Radon

Our system monitored for Radon and found levels of < >.

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon comes from the natural (radioactive) breakdown of uranium in soil, rock and water and gets into the air you breathe. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen.

Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).

Consumer Confidence Report Certification Form

Water System Name: Town of Spring Lake North Carolina

PWS ID#: 0 3 - 2 6 - 0 2 0 Report Year: 2008 Population Served: 9000

The community water system (CWS) named above hereby confirms that all provisions under 40 CFR parts 141 and 142 requiring the development of, distribution of, and notification of a consumer confidence report have been executed. Further, the CWS certifies the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primacy agency by their NC certified laboratory.

Certified by: Name: Daniel B. Gerald Title: Water Resources Director

Signature: _____

Phone #: 910-497-3390 Date: April 2, 2008

Check methods used and complete:

____ **Systems serving 100,000 or more persons** must post the CCR on a publicly-accessible Internet site which is www._____

____ **Systems serving 10,000 or more persons** must distribute the CCR by mail or direct delivery.
Date Delivered: _____ and specify direct delivery methods: _____
_____

__X__ **Systems serving less than 10,000 persons but more than 500 persons** must either distribute the CCR by mail or direct delivery. Date Delivered: _____ and specify direct delivery method:_____
_____

OR (mailing waiver option of the CCR itself) *(Voided if using CCR for Tier III Public Notification!)*
____ notify by "direct means" that the CCR is not being mailed, but it will be published in what newspaper(s) and when (attach copy of notice)
Date Delivered: _____ and specify "direct means" of delivery of the notice:_____
_____
____ and the complete CCR was printed in the local newspaper(s)
____ and a copy of the CCR was made available upon request

____ **Systems serving 500 or fewer persons** must either distribute the CCR by mail or direct delivery.
Date Delivered: _____ and specify direct delivery methods:_____
_____

OR (mailing waiver option of the CCR itself) *(Voided if using CCR for Tier III Public Notification!)*
____ notify by "direct means" that the CCR is not being mailed, but how a copy may be obtained (attach copy of notice)
Date Delivered: _____ and specify "direct means" of delivery of the notice:_____
_____
____ and a copy of the CCR was made available upon request

____ **"Good faith" efforts** (in addition to the above required methods) were used to reach non-bill paying consumers such as industry employees, apartment tenants, etc. Those extra efforts included the following methods:
____ posting the CCR on the Internet at www. _____
____ mailing the CCR to postal patrons within the service area
____ advertising the availability of the CCR in news media (attach copy of announcement)
____ publication of the CCR in local newspaper (attach copy)
____ posting the CCR in public places such as:(attach list if needed) _____
_____
____ delivery of multiple copies to single bill addresses serving several persons such as: apartments, businesses, and large private employers
____ delivery to community organizations such as: (attach list if needed) _____
_____

Note: For the mailing waiver option, the Direct Means allowed are a letter, a bill stuffer, a door hanger, or a postcard dedicated to the CCR. The notice may not be on the water bill itself as the only means of notification.

4/2005