

Buckingham County Water System

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Annual Drinking Water Quality Report 2007

Buckingham County Water System

We are pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. 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. Our water source is a surface water intake.

I am pleased to report that our drinking water is safe and meets all federal and state requirements.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact **Bruce Smith** at **(434) 983-2853**. 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 on the second Monday of each month at 7:00 p.m. in the Buckingham County Agricultural Center.

A source water statement of our water system was performed on June 1, 2006 by the Virginia Department of Health. Our water source was determined highly susceptible to contamination using the criteria developed by the State in its approved Source Water Assessment Program. The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting Bruce Smith at 434-983-2853.

The Buckingham County Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st, 2006 to December 31st, 2006. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) – laboratory analysis indicates that the constituent is not present.

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 – One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5NTU 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.

Maximum Contaminant Level – (mandatory language) The “Maximum Allowed” (MCL) is 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 – (mandatory language) The “Goal”(MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL)- The maximum allowable level for chlorine is 4 mg/L.

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

Treatment Technique (TT) – (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

TEST RESULTS						
Contaminant/unit of measurement	Violation Y/N	Level Detected	Sample Date	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants-None Detected (ND)						
Turbidity/NTU 2006	N	Avg=0.07 Range= 0.040 To 0.261	Daily for 2006	NA	TT-5 NTU & TT=95% of samples less than 0.3 NTU	Soil Runoff

Radiological Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
Alpha emitters pCi/L	0	15	0.3	No	April 2003	Erosion of natural deposits
Beta emitters pCi/L	0	50	1.6	No	April 2003	Decay of natural and man-made deposits
Combined Radium pCi/L	0	5	0.2	No	April 2003	Erosion of natural deposits
Inorganic Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Exceedance	Date of Sample	Typical Source of Contamination
Lead ppb	0	AL=15	1 (90 th percentile) Of the twenty samples collected none exceeded the AL	No	September 2005	Corrosion of household plumbing systems; Erosion of natural deposits
Copper ppm	1.3	AL=1.3	0.0963 (90 th percentile) Range: ND to 0.115 Of the twenty samples collected none exceeded the AL.	No	September 2005	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate Ppm	10	10	<0.05	No	April 2006	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride ppm	4	4	Avg. 0.94 Range 0.56 to 1.10	No	Monthly 2006	Water additive which promotes strong teeth
Microbiological Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Total Coliform Bacteria	0	1 positive monthly sample	0	No	Monthly 2006	Naturally present in the environment
Disinfection Byproducts						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
HAA5s (Total Haloacetic Acids) Ppb	N/A	60	20 Range: 5 to 32	No	Quarterly 2006	By-product of drinking Water disinfection
TTHMs (Total Trihalomethanes) Ppb	N/A	80	62 Range: 37 to 86	No	Quarterly 2006	By-product of drinking Water disinfection
Total Organic Carbon ppm	N/A	TT-TOC removal ratio greater than or equal to 1.00	Ave. Ratio: 1.23 Range: 1.09 to 1.48	No	Tested quarterly at raw and treated water	Naturally present in the environment

Chlorine Residual in ppm	n/a	MRDL=4 ppm	1.6 Range 1.2 to 1.8	No	Tested several times per day	Chlorine is added to the water to protect our customers from viruses and bacteria that may exist in the reservoir.
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Some of the testing noted in the above table may be from years other than 2006. The state allows monitoring of, for some contaminants, less than once a year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, is more than a year old.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water hotline at 1-800-426-4791.

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 (1-800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at Buckingham County Waterworks work to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. Please contact our office with any questions.