

# Town of West Point

## 2008 Annual Drinking Water Quality Report



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### INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2008 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, want additional information about any aspect of your drinking water, or want to know how to participate in decisions that may affect the quality of your drinking water, please contact:

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**Director of Public Works**  
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West Point, Virginia 23181  
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The West Point Town Council meets at 7:30 P.M. on the last Monday of each month in the Town Hall located at 329 Sixth Street.

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### GENERAL INFORMATION

Drinking water, including bottled drinking 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 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. Immune-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. Environmental Protection Agency/ Center for Disease Control (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).

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 human activity. Contaminants that may be present in source water include: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic tanks, agricultural livestock operations, and wildlife. (2) 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. (3) Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses. (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic system. (5) Radioactive contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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### DEFINITIONS

Contaminants in drinking water are routinely monitored according to state and federal regulations. The state allows the Town of West Point Water Department to monitor for some contaminants less than once per year. Because concentrations of these contaminants do not change frequently, some of the data, though representative, is more than one year old. The following tables show the results of monitoring during the last water quality inspection performed by the Virginia Department of Health, Office of Water Programs and list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment. Within the tables and elsewhere in this report you will find many terms and abbreviations that might not be familiar.

The following definitions are provided to help you better understand these terms:

- **Action Level (AL):** The concentration of a contaminant, which, when exceeded, triggers treatment or other requirements, which a water system must follow.
- **Maximum Residual Disinfectant 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 Residual Disinfectant 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 Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below, which there is no known or expected risk of health. MCLGs allow for a margin of safety.
- **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.
- **N/A:** Not applicable.
- **ND (Non-Detects):** Lab analysis indicates that the contaminant is not present.
- **PPB (Parts per Billion):** Micrograms per liter-one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **PPM (Parts Per Million):** Milligrams per liter-one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **PCI/L (Picocuries per Liter):** A measure of the radioactivity in water.

## WATER QUALITY RESULTS

### I. Microbiological Contaminants

Contaminant	MCLG	MCL	No. of samples Indicating Presence of Bacteria	Violation (Y/N)	Month of Sampling	Typical Source of Contamination
Total Coliform Bacteria	0	1 Positive sample per month	1	N	June 2008	Naturally present in the environment

### II. Lead and Copper Contaminants

Contaminants	Units of Measurement	Action Level	MCLG	Results of Sample For the 90 <sup>th</sup> Percentile Value	Action Level Exceeded (Y/N)	Month of Sampling	# of Sampling Sites Exceeding Action Level	Typical Source of Contamination
Copper	ppm	1.3	1.3	0.0983	N	8/08	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	ppb	15	0	<2	N	8/08	0	Corrosion of household plumbing systems; Erosion of natural deposits.

### III. Other Chemical and Radiological Contaminants

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Violation (Y/N)	Range of Detection at Sampling Points	Date of Sample	Typical Source of Contamination
Fluoride	ppm	4	4	2.47 (Well #1) 1.90 (Well #2) 1.97 (Well #3)	N	1.90 – 2.47	2/23/06 2/06/08 2/06/08	Erosion of natural deposits; discharge from fertilizer
Gross Beta (*)	PCi/L	0	50	6.4 (Well #1) 6.4 (Well #2) 4.1 (Well #3)	N	4.1 – 6.4	5/6/03 5/6/03 5/2/01	Decay of natural and manmade deposits
Gross Alpha	PCi/L	0	15	0.8 (Well# 1) 9.6 (Well# 2) 1.8 (Well# 3)	N	0.8 – 9.6	5/6/03 5/6/03 5/2/01	Erosion of natural deposits
Combined Radium	PCi/L	0	5	0.5 (Well #1) 0.5 (Well #2) 1.1 (Well #3)	N	0.5 – 1.1	5/6/03 5/6/03 5/2/01	Erosion of natural deposits

Total Trihalomethanes (TTHM)	ppb	80	80	4.8 ppb 3.2 ppb <0.5 ppb	N	<0.5 - 4.8 ppb	8/2/07	By-product of drinking water chlorination
Nitrate & Nitrite Nitrate [measured as Nitrogen] (ppm)	ppm	10	10	<0.05 (Well #1) <0.05 (Well #2) .12 (Well #3)	N	<0.05 - .12	2/6/08 2/6/08 2/6/08	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

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

#### IV. Disinfectants

Disinfectants	Units of Measurement	MRDLG	MRDL	Level Detected (Annual Average in distribution)	Violation (Y/N)	Range of Detection at Sampling Points	Year	Typical Source
Chlorine	ppm	4	4	0.28	N	0.08 – .55	2008	Water additive used to control microbes

### SOURCE(S) and TREATMENT OF YOUR DRINKING WATER

Your water comes from three municipal wells that are located within the town. The Town of West Point owns the land around these wells and restricts any activity that could contaminate them. After the water comes out of the wells, we treat it by chlorination to prevent bacteriological growth within the distribution system. As a first step toward protection of our sources of drinking water, the Virginia Department of Health (VDH) evaluated the susceptibility of Virginia's water supplies to contamination. Contamination sources and pathways were reviewed using maps, known and observed activities, water quality data and information about the water source. Using criteria developed by the state in its EPA-approved Source Water Assessment Program, it was determined that on a relative basis, all three wells are of low susceptibility to contamination. A copy of the source water assessment report is available by contacting Mr. Walt Feurer at (804) 843-4365.

### VIOLATION INFORMATION

Your water system did not have any violations during 2008.

### ADDITIONAL HEALTH INFORMATION

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 West Point 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature 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>.

### OTHER DRINKING WATER CONSTITUENTS OF INTEREST:

MCL's are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCL's at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

### YOU NEED TO KNOW

The average sodium concentration of samples collected from Wells 1, 2 and 3 on February 14<sup>th</sup>, 2006 and February 6<sup>th</sup>, 2008 was 183 ppm. This concentration exceeds the recommended maximum contaminant level of 20 ppm for persons on a "strict" sodium diet.

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER:**

### ***Elevated Fluoride Levels Detected***

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental Fluorosis). The drinking water provided by Town of West Point's Water Department has an average fluoride concentration of 2.11 mg/l\*.

Dental fluorosis in its moderate or severe forms may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under the age of nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

\* Tests Performed on 2-23-06 & 2-6-08

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### ***NOTICE TO OUR WATER SYSTEM CUSTOMERS***

The Virginia Waterworks Regulations, developed by the State Health Department, requires each public water system owner to establish a program of cross-connection control and backflow prevention and to update that program every three years. This program is designed to prevent contamination of your drinking water.

How does contamination occur? Contamination may occur under back-siphoning or backpressure conditions, whereby contaminants are siphoned or forced back into the drinking water supply.

Back-siphoning of contaminants may occur when there is a pressure drop creating a suction or partial vacuum in the system. This may happen during a waterline break or high usage in the water system, such as heavy consumption or fire fighting situations (when fire hydrants are available).

Backpressure may occur when there are pumps or boilers on the water system, which produce pressures higher than water system pressures.

Backflows due to cross-connections are serious plumbing problems. They can cause sickness and even death. However, they can be avoided by the use of proper protection devices. Each outdoor spigot at your home should have a hose vacuum breaker installed. This is a simple, inexpensive device, which can be purchased at any plumbing or hardware store. Installation is as easy as attaching your garden hose to a spigot.

We all share the responsibility of safeguarding our water system from contamination; whether you are a homeowner, a tenant, an apartment manager, a businessperson, or any other user of our potable water system.

Please take a moment and complete the Cross Connection Control Survey. For your convenience you may either return this survey with your next water bill payment or drop it off at the West Point Town Hall.

# Town of West Point Cross Connection Control Survey

1) Property type? Residential Commercial Industrial

Business name \_\_\_\_\_

2) Occupancy type? Own Rent

Mailing address: \_\_\_\_\_

Physical address: \_\_\_\_\_

\_\_\_\_\_

3) This meter serves Multi-story building Single-story building

4) Do you have (Check all that apply)

Swimming pool

Jacuzzi/Hot tub

Underground sprinkler system

Drip irrigation system

Booster pump/well

Boiler/Hot water heat

Utility sinks with threaded faucet

Fire sprinklers

Auxiliary Water Supply

Other possible source

5) Do you use (Check all that apply)

Antifreeze flush kits

Darkroom equipment

Insecticide sprayers (attached to a garden hose)

Portable dialysis machine

6) Do you have a water softener or any other treatment system connected to your water system? YES NO

7) Do you have a backflow preventive device on your property now? ..... YES NO

(If yes, where is it located?) \_\_\_\_\_

8) Do you have any situation that you are aware of that could create a cross-connection?..... YES NO

(If yes, explain) \_\_\_\_\_

9) Do you have any other water using equipment on your property not mentioned above?..... YES NO

(If yes, what) \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Thank you for working with us to protect your drinking water. For more information on cross-Connections call the Town of West Point's Public Works Department at 843-4365.

Jun-12