

Annual Drinking Water Quality Report

Northampton County Government Complex

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2015 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:

Northampton County Public Works Department at (757)678-0414

The times and location of regularly scheduled board meetings are as follows:

The Northampton County Board of Supervisors meets the second Tuesday of every month in the Board of Supervisors chambers at 16404 Courthouse Road in Eastville, VA.

“Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.”

GENERAL INFORMATION

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater many or may not have any treatment.

All 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. 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).

SOURCE OF YOUR DRINKING WATER

The source of your drinking water is groundwater as described below. It does not require any treatment.

Well # 1, or the South Well, is 200' deep and withdraws water from the Middle Yorktown Eastover aquifer. The well is equipped with a submersible pump that can deliver 60 gallons per minute. Pressure and storage is provided by a 125,000 gallon elevated storage tank. Two additional wells have been drilled but have not yet been certified by the Virginia Department Health / Office of Drinking Water.

The Virginia Department of Health conducted a Source Water Assessment of the Northampton County Government Complex Waterworks in 2006. The first well (Well 1) or the South well, was determined to be of low susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment area, an inventory of known Land Use Activities utilized at Land Use Activity Sites in Zone 1, Susceptibility Explanation Chart, and Definitions of Key Terms. This report is available by contacting your waterworks system owner/operator at the phone number listed in this document.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next page shows the results of our monitoring for calendar year 2014 or the most recent sample in the last five years. In the table and elsewhere in this report you will find many terms and abbreviations with which you might not be familiar. The following definitions are provided to help you better understand these terms:

Non-detects (ND) – A non-detect means that the contaminant level was below the detection limit for that particular contaminant; it does not necessarily mean that the contaminant was 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.

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.

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

Action Level - 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 Contaminant Level, or 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, or 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.

N/A – Not Applicable

Other Definitions

Millirems per year (mrem/year) – a measure of radiation in terms of its ability to deposit damaging energy into the body’s tissues

WATER QUALITY RESULTS

Regulated Contaminants

<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Found</u>	<u>Range Low-High</u>	<u>Violation</u>	<u>Date of Sample</u>	<u>Typical Source of Contamination</u>
Radiological Contaminants							
Gross Beta (pCi/L)	0	50*	2.7	N/A	No	11/2012	Decay of natural of man-made deposits
Xylenes	10	10	5.3 ppb	N/A	No	8/2011	Gasoline or solvents stored in leaking underground storage tanks
Ethylbenzene	700	700	1.2 ppb	N/A	No	8/2011	Gasoline or Solvents stored in leaking underground storage tanks
Inorganic Contaminants							
Copper (ppm)**	Action level = 1.3	Action level = 1.3	0.093 ppm	ND – 0.19 ppm	No	2014	Materials associated with service lines and home plumbing
Bacteriological Contaminants							
Total Coliform Bacteria	0	1 positive per month	3	N/A	Yes	07/2015	Naturally present in the environment
E. coli Bacteria	0		0	N/A	No	N/A	Human or animal fecal waste

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

** These results are for the 90th percentile. No sites exceeded the action level.

“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 Northampton County Government Complex Waterworks 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 of at <http://www.epa.gov/safewater/lead>.”

“Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.”

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table lists 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.

Some of the results in the table are from testing done in 2015. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

The U.S. Environmental Protection Agency sets MCLs at very stringent levels. 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 MCLs 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.

VIOLATION INFORMATION

Your water system had one violation during this CCR year. The maximum contaminant level (MCL) for total coliform bacteria is one positive sample per month. Our system had three positive samples in July 2015. Because of the total coliform in the July tests, we did increased monitoring ensure there use not a problem with the water system.

“Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.”

This Drinking Water Quality Report was prepared by:

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