Annual Drinking Water Quality Report

Town of Tappahannock

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). **This Form Will NOT Be Mailed To Consumers. They Are Available @ The Tappahannock Town Office @ 915 Church Lane Between The Hours of 8:30 am & 4:30 pm.**

If you have questions about this report, please contact:

Frank Sanders -Tappahannock Town Office Phone # (804) 443-3336

If you 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:

Tappahannock Town Office, (804) 443-3336

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

Second Monday of each month at 7:00 p.m. at the following address:
915 Church Lane Tappahannock, VA *Note – Two weeks advance notice required to be placed on agenda.*

GENERAL INFORMATION

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: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (2) 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. (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 stormwater runoff, and septic systems. (5) Radioactive contaminants, which can be naturally occurring or be the result 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.

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 their 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(S) and TREATMENT OF YOUR DRINKING WATER

The source(s) of your drinking water is/are ( ) surface water (X) groundwater as described below:

All three wells are located within The Town.

Is there any treatment of your drinking water supply? (X) Yes ( ) No If yes, it is described below:

The groundwater is chlorinated to prevent bacteriological growth in 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, **three of our wells are of low susceptibility to contamination.** Our fourth and newest well has yet to be evaluated. Your current water quality is described in the rest of this report. A copy of the source water assessment report is available by contacting **Mr. Frank Sanders**.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next few pages shows the results of our monitoring. In the tables and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

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.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
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, 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.
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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

WATER QUALITY RESULTS

I. Lead and Copper Contaminants

Contaminant	Units of Measurement	Action level	MCLG	Results of samples for the 90th Percentile Value	Action Level Exceedance (Y/N)	Month of Sampling	# of Sampling Sites Exceeding Action level	Typical Source of Contamination
Copper	ppm	1.3	1.3	0.11	N	August 2015	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	ppb	15	0	2.5	N	August 2015	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

II. Other Chemical and Radiological Contaminants

Contaminant	Units 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	1.83	N	1.37-1.83	2013 & 2015	Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Total Trihalomethanes	ppb	80	80	1	N	NA	2015	By-product of drinking water chlorination.
Gross Alpha	pCi/L	0	15	0.8	N	ND – 0.8	2013	Erosion of natural deposits.
Gross Beta(1)	pCi/L	0	50	3.1	N	2 – 3.1	2013	Decay of natural and man-made deposits.
Combined Radium	pCi/L	0	5	< 0.6	N	NA	2013	Decay of natural and man-made deposits.

(1) The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be the level of concern for beta particles.

III. Unregulated Inorganic Contaminants

Contaminants (units)	Date Sampled	Level Detected	Range of Detection	
Sulfate (ppm)	2012-2013	13.9 ppm	13.6 – 13.9 ppm	EPA and State Regulations require us to monitor this contaminant while EPA reconsiders its MCL.

IV. Disinfectants

Disinfectant	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	0.49	N	0.12 – 1.64	2015	Water additive used to control microbes.

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were nct present or were below the detection limits of the lab equipment.

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

Other drinking water constituents you may be interested in are as follows:

The sodium concentrations in the samples collected from 2013 & 2015 were 94.2 ppm, 90.4 ppm, 107 ppm and 92.3 ppm for wells 2, 3 & 4 respectively. This concentration exceeds the maximum recommended level of 20 ppm for persons on a "strict" sodium diet.

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.

VIOLATION INFORMATION

Our water system received a violation for Exceeding the Primary Contaminant Level for Total Coliform Bacteria in August 2015 for 3 of 5 samples testing positive for total coliform bacteria.

ADDITIONAL HEALTH INFORMATION

1. Those persons who have in-home water purification systems need to follow the manufacture's recommendations for maintenance to insure that no contamination of your drinking water from poorly maintained systems develops.
2. Persons on a strict sodium diet should contact your physician for recommendations on avoiding potential health risks.
3. Persons interested possible fluoride supplements for children should contact a medical professional with the above referenced fluoride concentrations. Your doctor can make an assessment of the necessity of supplemental fluoride treatment.
4. 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 Tappahannock 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 drinking 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

This Drinking Water Quality Report was prepared by:

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