2020 Annual Drinking Water Quality Report

Bath County Service Authority
Ashwood

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2020 is designed to provide you with valuable information about your drinking water quality. The Bath County Service Authority is committed to providing 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 meets all State and Federal requirements administered by the Virginia Department of Health (VDH), Office of Drinking Water.

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:

Mr. Gene Q. Phillips, Bath County Service Authority at (540) 839-7251

You can get additional information by attending the monthly meeting of the Bath County Service Authority held the first Monday of every month at 7:00 p.m. in the Courtroom located at the Bath County Courthouse.

GENERAL INFORMATION

The source of drinking water (both tap water and bottled water) includes, 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 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 agriculture, urban stormwater 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. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Water from surface sources is treated to make it drinkable while groundwater may 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).

SOURCES AND TREATMENT OF YOUR DRINKING WATER

Your drinking water is groundwater obtained from one (1) drilled well. Water is distributed throughout the area through ductile iron class 50 six-inch water pipe. The distribution system consists of three hundred thirty (330) feet of two-inch water line, two hundred thirty-one (231) feet of four-inch waterline, and eight hundred seventy-eights (878) feet of six-inch waterline with four fire hydrants.
Treatment equipment is provided at the well house to disinfect the water prior to distribution. Twelve percent (12%) chlorine is added at the well house using a chem tech feed chlorinator. Aqua-mag is added with a chem pulse chlorinator C12 pump to help soften the water at a rate of one (1) ounce per 2,200 gallons of water pumped.

Some additional information concerning the well:

This Well produces sixty gallons of water per minute, and is located West of State Route 220 behind the Valley Elementary school. The Well is drilled to a depth of seven hundred seventy (700) feet.

The Well pump is set at three hundred eighty-seven (387) feet, and pumps at a rate of forty (40) gallons per minute or fifty-seven thousand six hundred (57,600) gallons per day. Presently the customer's average daily use is fifteen thousand (15,000) gallons per day. The system has one glass lined storage tank with a capacity of two hundred thirty-six thousand (236,000) gallons.

SOURCE WATER ASSESSMENTS

A source water assessment has been completed by VDH. The assessment determined that our sources might be susceptible to contamination because they are located in an area that promotes migration of contaminants from land use activities of concern. More specific information may be obtained by contacting the water system representative listed above.

QUALITY OF YOUR DRINKING WATER

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The table on the following pages shows the results of our monitoring for the period of January 1st to December 31st, 2020.

DEFINITIONS

In these tables 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.

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.

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 that a water system must follow.

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

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.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

WATER QUALITY RESULTS

Inorganic Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Nitrate ppm	10	10	0.64	No	August 2020	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection By-Products						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
TTHM's (Total Trihalomethanes) ppb	0	80	0.012	No	August 2019	By-product of drinking water chlorination
Haloacetic acids (HAAs) ppb	NA	60	0.0019	No	August 2019	By-product of drinking water chlorination

Lead & Copper						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Exceedance	Date of Sample	Typical Source of Contamination
Lead ppb	0	15	8 (90th percentile) None of the five samples collected exceeded the lead AL.	No	August 2020	Corrosion of household plumbing systems; Erosion of natural deposits
Copper ppm	1.3	AL=1.3	0.100 (90th percentile) None of the five samples collected exceeded the AL.	No	August 2020	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Radiological Contaminants						
Contaminant / Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Gross Alpha pCi/L	0	15	0.4	No	September 2015	Erosion of natural deposits
Combined Radium pCi/L	0	5	0.8	No	September 2015	Erosion of natural deposits
Gross Beta pCi/L	0	50	0.9	No	September 2015	Decay of natural and man-made deposits

Disinfectant Residual Contaminants						
Contaminant/Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Chlorine mg/l	4	4	0.41 to 0.59	No	Monthly	By-product of drinking water chlorination

The results in the table are from testing done in 2015, 2019, and 2020. 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. Some of our data, though accurate, is more than one year old.

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.

Maximum Contaminant Levels (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.

Lead Contaminants
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. Cedar Creek 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 30 seconds to 2 minutes 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.

Violation Information
We did not have any violations for the year 2020.