2020 Annual Drinking Water Quality Report

Heritage Point Water Works
VA4103500

This Annual Drinking Water Quality Report for calendar year 2020 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).

We are pleased to report that Heritage Point's drinking water is safe and meets State and Federal requirements.

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 Ernie Greene at 804-462-0027. The Heritage Point Water Works board meetings are held in the Club House.

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 the 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 system 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).

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems;
- 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 in water 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.

SOURCES AND TREATMENT OF YOUR DRINKING WATER
Your drinking water supply is from two wells located within the subdivision. Well # 1A is on lot # 7B, which is off Bury Lane and south of the pool. Well #2A is located on lot 95A, on a service road, across Belmont Drive from and 200 feet west of the entrance of Greenmoss Lane. Your water is treated with chlorine to preserve water quality and protect against microbial contamination.

The Virginia Department of Health conducted a source water assessment of our system during 2001. They used criteria developed by the State in its EPA-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 from the date of the assessment. Neither of our wells has been found to be highly susceptible to contamination.

FLUORIDE PUBLIC NOTICE

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 or ppm)) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). In 2020, the drinking water at Heritage Point from well #1A had a fluoride concentration of 2.04 mg/l (ppm). In 2018, the drinking water at Heritage Point from well #2A had a fluoride concentration of 2.09 mg/l (ppm).

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 less than 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 4 mg/l (ppm) 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 (ppm) of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l (ppm) because of this cosmetic dental problem.

For more information, please call Mr. Doug Anderson at (804-436-6400). Some home water treatment units are also available to remove fluoride from drinking water. To learn about home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

State Health Officials have advised us that we are required to report to you that during the period from January 2013 to December 2019, we failed to monitor for Radiological Compounds (RADS), as required by Virginia *Waterworks Regulations*. Therefore, we cannot be sure of the quality of our drinking water during that period.

State Health Officials believe that there is little need for concern about the safety of your water because past records show that our waterworks has had no documented problems with radiological contamination; however routine sampling and examination is required to determine the quality of the water that is delivered to our customers.

Once the omission was recognized, a test kit was provided to us, and we collected the sample in December 2020. As in the past, the results were well within accepted levels. This test is required to be conducted every six years.

DEFINITIONS

Tests for Contaminants in your drinking water are routinely performed according to State and Federal regulations. The following tables show 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:

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Non-detects (ND) - lab analysis indicates that the contaminant is not present.
Parts per million (ppm) or Milligrams per liter (mg/1) - 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/1) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
pH – The EPA defines pH as "pH scale measures how acidic or basic a substance is. It ranges from 0 to 14. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic. Each whole pH value below 7 is ten times more acidic than the next higher value."
Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.
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.

Maximum Contaminant Level Goal (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.
Millirems per year (mrems/year) – a measure of radiation absorbed by the body.
Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.
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.

HERITAGE POINT 2020 WATER QUALITY TEST RESULTS

Heritage Point constantly monitors for various contaminants in the water supply to meet all regulatory requirements. The tables below 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. The State allows Heritage Point to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The following tables cover the 2016 through 2020 monitoring periods. Some of the data below, though accurate, are more than one year old.

I. Lead and Copper Contaminants

CONTAMINANT (units)	MCLG	Action Level	Level Detected	Range	# of samples above AL	Date of Sample	Typical Source of Contamination
Copper (ppm)	1.3	1.3	0.13	0 - 0.13 MG/L	0	2020	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching of wood preservatives.
Lead (ppb)	15	15	<2PPB	<2 PPB	0	2020	Corrosion of household plumbing; Erosion of natural deposits

II. Other Chemical and Radiological Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Violation (Y/N)	Range of Detection	Date of Sample	Typical Source of Contamination
Fluoride (ppm)	4	4	2.09	No	2.04 – 2.09	12/20/2020	Erosion of natural deposits.
Barium (ppm)	2	2	0.019	No	0.019	12/18/2018 12/07/2020	Discharge from drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/L)	0	5	0.8	No	0.1 – 0.8	06/11/2018 12/29/2020	Erosion of natural deposits
Gross Alpha (pCi/L)	0	15	0.8	No	ND - 0.8	06/11/2018 12/29/2020	Erosion of natural deposits
Gross Beta (pCi/L)	0	50	3.2	No	3.2	06/11/2018 12/29/2020	Erosion 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.

II. Disinfectants

CONTAMINANT (units)	MCLG or MRDLG	MCL or MRDL	Level Detected	Range	Date of Sample	Violation	Typical Source of Contamination
Chlorine (ppm)	4	4	0.04	0.03 – 0.05	2020	No	Water additive used to control microbes
HAA5 (ppb)	60	60	ND	NA	2019	No	By-product of drinking water chlorination
TTHM (ppb)	80	80	ND	NA	2019	No	By-product of drinking water chlorination

A note about lead in drinking water: 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. Heritage Point 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 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.

A note about fluoride in drinking water: Some people who drink water containing fluoride in excess of the MCL (4 ppm) over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

OTHER WATER QUALITY PARAMETORS OF INTEREST

The pH of the 2018 sample collected from well #2A was 8.5. The pH of the 2020 sample collected at well #1A was 8.5. Both of these levels can cause redness of the skin in some people.

The sodium concentration in the 2020 sample collected at well #1A was 179 mg/l.. The sodium concentration in the 2018 sample collected at well #2A was 173 mg/l.. These concentrations exceed the recommended level of 20 mg/L (ppm) for persons on a "strict" sodium diet.

Water Taste: In August of 2001, your water system was required to be chlorinated by the Virginia Department of Health. The taste of your tap water may be safely improved by removal of the taste of chlorine. You may: 1. Place a pitcher of water in your refrigerator for an hour before drinking. 2. Use a carbon filter. Follow the instructions provided by the manufacturer for proper installation and maintenance of carbon filter or any other treatment process.

ADDITIONAL INFORMATION OF INTEREST

THE RESERVE FUND

The Reserve Funds are a means of assuring that funds for major repairs, equipment replacements and cost of complying with government regulations will be available when needed. It is also an equitable method of charging for current use of assets. Having adequate reserves is one of the criteria required to demonstrate your waterworks has the Financial Capacity to operate under Virginia Department of Health's Capacity Development Program. Systems that do not qualify may have to merge with systems that do or sell. The Water Board has a fiduciary duty to build up to and maintain a fully funded reserve fund.

RATE ADJUSTMENTS

In our continuing efforts to maintain a safe and dependable water supply, it will be necessary to make changes and improvements at the Heritage Point waterworks. In addition, administrative, repair and reserve costs are rising. Rate adjustments are necessary in order to address these expenses. The Heritage Point water rates are among the lowest in our area. We are working to keep the rates low.

AGE OF WELLS
In 2005, we drilled and put online Well #1A to replace failed Well #1. In 2009, we drilled and put online Well #2A to replace Well # 2. We are required to have two wells.

This Drinking Water Quality Report was prepared by:
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