2021
Annual Drinking Water Quality Report
Avon Crest Community – MD0080002
Charles County, Maryland
Prepared by the Department of Public Works
Utilities Division

We are pleased to present the Annual Drinking Water Quality Report for the Avon Crest Community for the period of January 1, 2021, through December 31, 2021. This report informs you about the quality of the water and services we deliver to you every day. This report is provided in compliance with Federal regulations and is updated annually.

Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to protecting water resources, improving the water treatment process, and ensuring the quality of your water meets or exceeds all local, State, and Federal standards and regulations. We are confident the drinking water from the Avon Crest system is safe and meets all Federal and State requirements. A source water assessment was performed by MDE and is available on their website, mde.maryland.gov.

Usted puede obterner esta información en espańol, llamando al Departamento de Obras Públicas División de Utilidades en 301-609-7400.

The source of the drinking water for the Avon Crest system is the Patapsco aquifer. An aquifer is an underground reservoir or deposit of water that is tapped by drilling wells and pumping the water to the surface for distribution. The earth between the surface and the underground aquifer helps to purify the water, making it easier to treat the water supply before it is pumped into the water distribution system. The Avon Crest system is served by 2 wells.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade, such as microbes, inorganic or organic chemicals, and radioactive substances. Drinking water, including bottled 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 about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. The elderly, infants, and immunocompromised persons, such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) or other immune system disorders, can be at a higher risk of infection from contaminants. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency/Center for Disease Control (EPA/CDC) guidelines to reduce the risk of infection are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The Department of Public Works, Utilities Division, routinely monitors the Avon Crest system for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring efforts and identifies the year a contaminant was tested. The results of testing for contaminants which are not regulated are listed in the Unregulated Contaminants section. Definitions of key terms are presented below the table.

Avon Crest System

Test Results						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Major Source in Drinking Water
Disinfectants						
Chlorine (2021)	N	0.9 to 1.2	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
Disinfectant By-Products						
TTHMs [Total Trihalomethanes] Distribution (2020)	N	1.3	ppb	No goal for the total	80	By-product of drinking water chlorination
HAA5s Haloacetic Acids Distribution (2017)	N	4.8	ppb	No goal for the total	60	By-product of drinking water chlorination
Inorganic Contaminants						
Barium (2020)	N	0.051	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (2020)	N	0.78	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (2018)	N	0.24	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead Distribution (2020)	N	2	ppb	0	AL= 15	Corrosion of household plumbing systems, erosion of natural deposits
Copper Distribution (2020)	N	0.17	ppm	1.3	AL= 1.3	Corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives
Radioactive Contaminants						
Beta emitters (2017)	N	6.1	pCi/L	0	50	Decay of natural and man-made deposits
Combined Radium 226/228 (2017)	N	0.2	pCi/L	0	5	Erosion of natural deposits
Gross alpha excluding radon and uranium (2017)	N	3.6	pCi/L	0	15	Erosion of natural deposits
Volatile Organic Contaminants						
Xylenes (2016)	N	0.00213	ppm	10	10	Discharge from petroleum & chemical factories

Definitions of Key Terms

- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.
- 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.
- 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 Residual Disinfection 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 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 of microbial contaminants.
- Non-Detects (ND) – The laboratory analysis indicates the contaminant is non-detectable.
- Parts per billion (ppb) or Micrograms per liter (µg/L) – The equivalent of 1 minute in 2,000 years or a single penny in $10,000,000.00
- Parts per million (ppm) or Milligrams per liter (mg/L) – The equivalent of 1 minute in 2 years or a single penny in $10,000.00.
- Picocuries per liter (pCi/L) – A measure of the radioactivity in water.
- Avg – average value

In recent years EPA and MDE has been studying Polyfluoroalkyl substances and its effects on potable water.

> PFAS – short for per- and polyfluoroalkyl substances – refers to a large group of more than 4,000 human-made chemicals that have been used since the 1940s in a range of products, including stain- and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.
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> Currently, there are no federal regulations (i.e., Maximum Contaminant Levels (MCLs)) for PFAS in drinking water. However, the U.S. Environmental Protection Agency (EPA) has issued a Health Advisory Level (HAL) of 70 parts per trillion (ppt) for the sum of PFOA and PFOS concentrations in drinking water. While not an enforceable regulatory standard, when followed, the EPA HAL does provide drinking water customers, even the most sensitive populations, with a margin of protection from lifetime exposure to PFOA and PFOS in drinking water. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. The combined PFOA and PFAS concentration from samples taken from the Avon Crest water system was below detection limit. MDE anticipates that EPA will establish an MCL for PFOA and PFOS in the near future. This would entail additional monitoring. Additional information about PFAS can be found on the MDE website: mde.maryland.gov"

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of experiencing adverse health effects from the contaminant. The presence of some contaminants in drinking water is unavoidable, but we make every effort to keep your drinking water at or below the levels specified by law as being safe for consumption.

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 Department of Public Works, Utilities Division, 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 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Conserving water saves you money!

Approximately sixty percent of total household water supply is used inside the home and forty percent is used outside the home. A few simple changes can reduce water usage. Run the dishwasher only when full. Use a dishpan or plug the sink when hand-washing dishes. Run full loads of laundry instead of many small loads. Pull weeds to decrease competition for water. Repair or replace leaking hoses and sprinklers.

The staff of the Department of Public Works, Utilities Division, works diligently to provide top quality water and excellent customer service. All customers are urged to protect our valuable water resources and practice conservation to ensure a sustainable water supply for our community. If you have any questions concerning this report or any aspect of your water utility, please contact Sam Simanovsky, Chief of Operations and Maintenance, at 301-609-7400.