ANNUAL DRINKING WATER QUALITY REPORT FOR 2017

KENT COUNTY DEPARTMENT OF PUBLIC WORKS
DIVISION OF
WATER & WASTEWATER

WORTON/BUTLERTOWN WATER SYSTEM

PUBLIC WATER SYSTEM IDENTIFICATION NUMBER
MD 014-0007 TP01

May 2018

We are pleased to present to you the Annual Water Quality Report for 2017. The purpose of this report is to inform you about the water quality and services we deliver to you every day. Our goal is to provide you, the customer, with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources and that we are committed to ensuring the quality of your water.

The water source for the ***Worton/Butlertown*** water system are two (2) groundwater wells located at the Worton water treatment plant site which draw water from the ***Magothy Aquifer.*** The well water is treated by pH adjustment, iron removal, filtration and disinfection processes.

After treatment, the water is stored in a 125,000-gallon water tower located in Worton and a 250,000-gallon water tower located in Butlertown. The water towers enhance domestic pressure and add volume for fire suppression purposes.

The Maryland Department of the Environment has performed a source water assessment of the Worton/Butlertown wells, which included a review of water quality data, potential sources of contamination, aquifer characteristics, and well integrity. It was determined from the evaluation that the Worton/Butlertown water supply is not susceptible to microbiological, inorganic, volatile organic or radiological contaminates. The treated water from the Worton water plant undergoes regular analysis for many different compounds and consistently meets all State and Federal requirements.

A copy of the report is available online at www.MDE.State.MD.US, the Public Works Department at 709 Morgnec Rd., Chestertown, MD 21620 and on the Kent County web site at https://www.kentcounty.com/water/reports.

Some people may be more vulnerable to contaminants in drinking water than the general population. *Immune-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)

Drinking water, including bottled water, may contain at least small amounts of some compounds. The presence of these compounds does not necessarily indicate that water poses a health risk. To obtain more information call the *EPA's Safe Drinking Water Act Hotline (1-800-426-4791).*

The table below lists all the drinking water contaminants detected during the sampling required by the Maryland Department of the Environment. The presence of these compounds in the water does not necessarily indicate that the water poses a health risk.

In this report, you will find many terms and abbreviations that might not be familiar to you. The following definitions explain these terms.

- ***Maximum Contaminant Level Goal (MCLG)*** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

- ***Maximum Contaminant Level (MCL)*** – The highest level of a contaminant that allowable in drinking water, MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

- **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.

- **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.

- ***Action Level (AL)*** – 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.

- ***Turbidity*** – Relates to a condition where suspended particles are present in the water. Turbidity measurements are a way to describe the level of "cloudiness" of the water.

- ***Nephelometric Turbidity Units (NTU)*** – Units of measurement used to report the level of turbidity or "cloudiness" in the water.

- ***pCi/l*** – Picocuries per liter-a measure of radiation.

- ***ppb*** – parts per billion or micrograms per liter

- ***ppm*** – parts per million or milligrams per liter

- **Avg** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.

TEST RESULTS								
Lead and Copper	**Date Sampled**	**MCLG**	**Action Level (AL)**	**90th Percentile**	**# Sites Over AL**	**Units**	**Violation**	**Likely Source of Contamination**
Copper	2017	1.3	1.3	<0.05	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	<0.05	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfectants and Disinfection By-Products	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Chlorine	0.9	0.7 – 0.9	MRDLG= 4	MRDL=4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	1	1.1 – 1.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	11	10.9 – 10.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Fluoride	0.02	0.02 – 0.02	4	4.0	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Radioactive Contaminants	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source of Contamination**
Beta/photon emitters (2013)	42.7	42.7 – 42.7	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228 (2013)	0.4	0.4 – 0.4	0	5	pCi/L	N	Erosion of natural deposits.
Gross Alpha excluding radon and uranium (2013)	2.1	2.1 – 2.1	0	15	pCi/L	N	Erosion of natural deposits.

Note: Test results are for year 2017 unless otherwise noted; not all tests are required annually.

Security Statement: Water system security continues to be an enormously important issue. If you notice suspicious activities in or around local water utilities, such as persons cutting or climbing facility fencing, loitering, tampering with equipment or other similar activities, please contact your local law enforcement agency immediately by dialing 911.

Information Regarding Gross Beta Emitters: Beta emitters are naturally occurring radiations in soil, air, and water. These emitters generally occur when certain elements decay or break down in the environment. The emitters enter drinking water through various methods including the erosion of natural deposits. There are no immediate health risks from consuming water that contain gross Beta, however some people who drink water containing Beta emitters in excess of the MCL over many years have an increased risk of getting cancer. Currently, the highest level of gross Beta detected is 42.7 pCi/L, which is below the 50 pCi/L Maximum Contaminate Level.

Water Conservation: The Department encourages all consumers to practice conservation on a routine basis, and to report any major leaks, or needed repairs to the Department as soon as possible.

Lead Statement (Not Present): 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 Kent County Department of Public Works Division of Water and Wastewater Service 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 Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

If you should have any questions regarding this report or concerning your water utility, please contact Kent County Department of Public Works Division of Water and Wastewater Services, at (410) -778-2600. In addition, any resident may obtain a copy of this report at the main office Monday thru Friday during normal business hours or on the internet at https://www.kentcounty.com/water/reports.