

Eastern Pre-Release Unit 2017 Drinking Water Quality Report

PWSID: 017-0006



Important Information About Your Drinking Water

We're pleased to present to you the Annual Water Quality Report for 2017. This report is designed to inform you about the water quality and services we deliver to you every day. Maryland Environmental Service (MES), an Agency of the State of Maryland, operates the water treatment facility and prepared this report on behalf of Eastern Pre-Release Unit.

The Environmental Protection Agency (EPA) regulates Public Water Systems and the contaminants found in water through the implementation of the Safe Drinking Water Act (SDWA). The SDWA sets regulations and guidelines for how public water systems operate and identifies several hundred drinking water contaminants, establishes monitoring frequencies and limitations. The Maryland Department of the Environment (MDE) is responsible for the enforcement of the SDWA and routinely complete Sanitary Surveys as part of their ongoing inspection and monitoring program. MES provides safe dependable operations of the water system and is dedicated to consistently providing high quality drinking water that meets or exceeds the SDWA standards.

If you have any questions about this report or have questions concerning your water utility, please contact **Jay Janney** at **410-729-8200**, e-mail jjann@menv.com.

For More Information:

For the opportunity to ask more questions or participate in decisions that may affect your drinking water quality, please contact Mr. Robert Turner the Facility Administrator for the **Eastern Pre-Release Unit at 410-810-5400**.

The Eastern Pre-Release Unit water works consists of two drilled wells in the Aquia formation. The water is treated by a Greensand filter to remove arsenic, then sodium hypochlorite is added for disinfection and orthophosphate for corrosion control. The treated water is sent to a 5,000 gallon hydropneumatic tank and then to the distribution network. The Maryland Department of the Environment has performed an assessment of the source water. A copy of the results is available. Call **Maryland Environmental Service**

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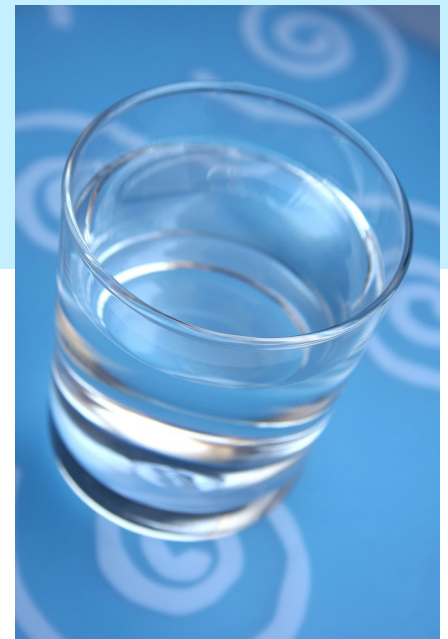
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Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the **Safe Drinking Water Hotline (1-**

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Definitions:

- ◆ **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.
- ◆ **Action Level** - 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.
- ◆ **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



Special points of interest:

The Eastern Pre-Release Unit Drinking Water met all of the State and Federal requirements Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some compounds. The presence of these compounds does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency's (EPA's) Safe Drinking Water Act Hotline (1-800-426-4791)**

Lead Prevention

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 Eastern Pre-Release Unit 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>.**

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Contaminant	Highest Level Allowed (EPA's MCL)	Highest Level Detected	Ideal Goal (EPA's MCLG)
Regulated at the Treatment Plant			
Nitrate	10 ppm	0.06 ppm (Range: 0.0 to 0.06 ppm)	10 ppm
Typical Source of Contamination: Runoff from fertilizer use and erosion of natural deposits			
Arsenic	10 ppb	1.0 ppb* (Range 0.0 - 2.4 ppb)	10 ppb
Typical Source of Contamination: Erosion of natural deposits			
*Annual Average			
Barium (2016 Testing)	2000 ppb	168 ppb (Range 167- 168 ppb)	2000 ppb
Typical Source of Contamination: Erosion of natural deposits			
Fluoride (2016 Testing)	4000 ppb	222 ppb (Range 220 - 222 ppb)	4000 ppb
Typical Source of Contamination: Erosion of natural deposits			
Gross Beta - (2017 Testing)	50 pCi/l*	8.9 pCi/l**	0.0 pCi/l
Typical Source of Contamination: Erosion of natural deposits			
*EPA considers 50 pCi/L to be the level of concern for beta particles			
** Because the beta particle results were below 50 pCi/l, no testing for individual beta particle constituents was required			
Regulated in the Distribution System			
Chlorine	4 ppm	1.44 ppm (Range: 0.59 - 2.20 ppm)	4 ppm
Source: Water additive to control microbes.			
* Annual average of monthly results			
Total Trihalomethanes (TTHM) (2017 Testing)	80 ppb	17.1 ppb	n/a
Typical Source of Contamination: By-product of drinking water disinfection			
Haloacetic Acids (HAA5) (2017 Testing)	60 ppb	8.9 ppb	n/a
Typical Source of Contamination: By-product of drinking water disinfection			
Regulated in the Distribution System			
	Action Level	90th percentile	Ideal Goal
Copper (2016 Testing)	1300 ppb	129.5 ppb	1300 ppb
Typical Source of Contamination: Corrosion of household plumbing fixtures and systems			
Lead (2016 Testing)	15 ppb	2.3 ppb	0 ppb
Typical Source of Contamination: Corrosion of household plumbing fixtures and systems			

The table above lists all the drinking water contaminants that were detected during the 2017 calendar year. The presence of these compounds in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in the table is from testing done January 1 – December 31, 2017. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Sources of Drinking Water

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain compounds in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Fluoride Information:

Federal regulations require that fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/l (4000 ppb) in drinking water. This is an enforceable standard called a Maximum Contaminant Level (MCL), and it has been established to protect the public health. Exposure to drinking water levels above 4.0 mg/l for many years may result, in some cases, of crippling skeletal fluorosis, which is a serious bone disorder. Fluoride in children's drinking water at levels of approximately 1 mg/l reduces the number of cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/l (2000 ppm) may develop fluorosis. Dental fluorosis, in its moderate and severe forms, is a brown staining and/or pitting of the *permanent* teeth. Because dental fluorosis occurs only when *developing* teeth (before they erupt from the gums) are exposed to elevated levels of fluoride, households without children are not expected to be affected by this level of fluoride.. Families with children under the age of nine are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting.

Important 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 contains gross Beta, however some people who drink water containing Beta emitters in excess of the MCL over many years may have an increased risk of getting cancer. Currently, the highest level of gross beta detected is 8.9 pCi/L which is below the 50 pCi/L MCL.

Arsenic:

Arsenic is a semi-metal element in the periodic table. It is odorless and tasteless. It enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Currently, the arsenic levels are being monitored quarterly.

