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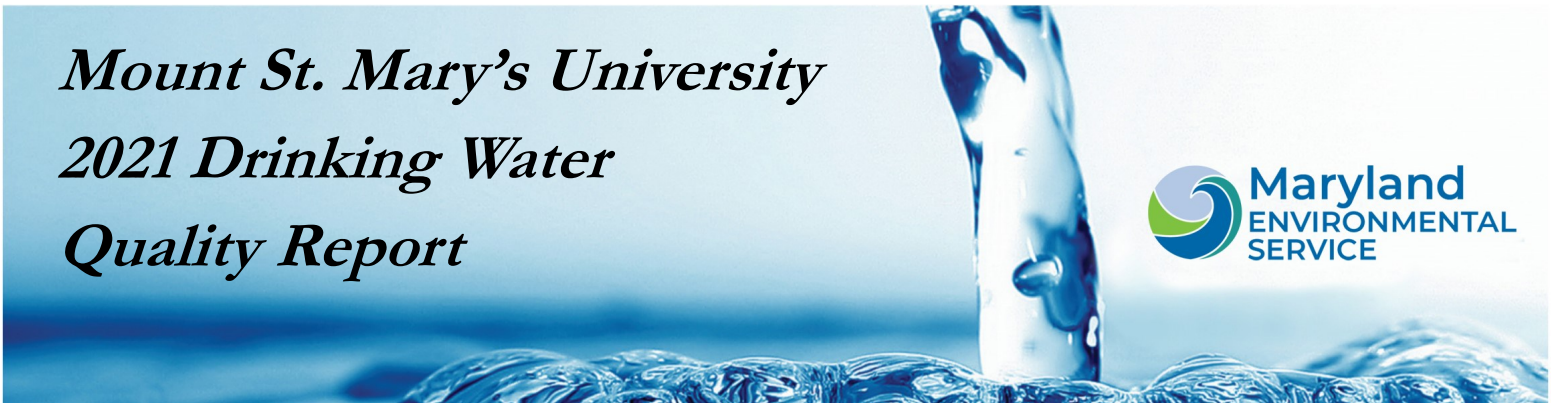
Mount St. Mary's University 2021 Drinking Water Quality Report



Important Information About Your Drinking Water

We're pleased to present to you the Annual Water Quality Report for 2021. 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, began operating the water treatment facility in June 2014 and prepared this report on behalf of the Mount St. Mary's University.

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 concerning your water utility, please contact **Tod Otis, Director of Capital Projects & Energy Management at 240-344-4765, e-mail: otis@msmary.edu**. Copies of this report will not be mailed to consumers but are available upon request from your utility.

For More Information:

Although Mount Saint Mary's Board of Directors meets on a quarterly basis, the meetings are not open to the public. If you have concerns, questions or suggestions that need the Board's attention, please contact William Davies at Mount Saint Mary's University 16300 Old Emmitsburg Road, Emmitsburg, MD 21727. Your inquiries will receive prompt attention.

Inside This Issue:

The Mount St. Mary's University water works consists of three drilled wells. Before the water enters the distribution network chlorine is added to protect against microbial contaminants. The water is then pumped into a storage tank. 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 at 410-729-8350.**

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 (1-800-426-4791).**

Mount St. Mary's University Treated Water Quality Report 2021

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
- **ppt** - parts per trillion or nanograms per liter

Special points of interest:

The water at the Mount St. Mary's University is tested for over 120 different compounds. **The Mount St. Mary's University's 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)**

Important information Regarding Gross Alpha Emitters:

Mount St. Mary's University's water system was placed on quarterly monitoring for Gross Alpha beginning in October 2014. Compliance with the MCL will be determined based on a annual rolling average of quarterly results. Alpha 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 alpha, however some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Currently, the highest level of gross alpha detected is 11.0 pCi/L.

The table on page 3 lists all the drinking water contaminants that were detected during the 2021 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, 2021. 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.

Mount St. Mary's University Treated Water Quality Report 2021

Contaminant	Highest Level Allowed (EPA's MCL)	Highest Level Detected	Ideal Goal (EPA's MCLG)
Regulated at the Treatment Plant - Point of Entry			
Nitrate	10 ppm	2.9 ppm	10 ppm
Typical Source of Contamination: Runoff from fertilizer use		(range from 1.2 to 2.9 ppm)	
Barium (2019 Testing)	2000 ppb	607 ppb	2000 ppb
Typical Source of Contamination: Erosion of natural deposits		(range from 239 to 607 ppb)	
Selenium (2019 Testing)	50 ppb	1.40 ppb	50 ppb
Typical Source of Contamination: erosion of natural deposits; discharge from mines		(range from 1.07 to 1.40 ppb)	
Arsenic (2019 & 2021 Testing)	10 ppb	5.1 ppb	10 ppb
Typical Source of Contamination: Erosion of natural deposits		(range from 3.8 to 5.1 ppm)	
Combined Radium (226 & 228) (2021 Testing)	5 pCi/l	3.2 pCi/l	0 pCi/l
Typical sources of contaminant: Erosion of natural deposits		(range from 0.3 to 3.2 pCi/l)	
Uranium (2021 Testing)	30 ug/l	19.4 ug/l	0 ug/l
Typical sources of contaminant: Erosion of natural deposits		(range from 5.6 to 19.4 ug/l)	
Gross Alpha (2021 Testing)	15 pCi/l*	11 pCi/l*	0.0 pCi/l*
Typical Source of Contamination: Erosion of natural deposits		(range from 2.3 to 17.1 pCi/l)	
* Result is a rotational annual average. Please read page 4 of the Consumer Confidence report for more information on Gross Alpha Emitters.			
Gross Beta - (2020 Testing)	50 pCi/l*	5.6 pCi/l**	0.0 pCi/l
Typical Source of Contamination: Erosion of natural deposits		(range from 0 to 5.6 pCi/l)	
*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	1.10 ppm *	n/a
Water Additive used to control microbes. *Annual Rolling Average		(range from 0.87 to 1.23 ppm)	
Total Trihalomethanes (TTHM) (2021 Testing)	80 ppb	24.1 ppb	n/a
Typical Source of Contamination: By-product of drinking water chlorination		(range from 7.9 to 24.1 ppm)	
Haloacetic Acids (HAA5) (2021 Testing)	60 ppb	8.6 ppb	n/a
Typical Source of Contamination: By-product of drinking water chlorination		(range from 1.5 to 8.6 ppm)	
Regulated in the Distribution System	Action Level	90th percentile	Ideal Goal
Copper (2021 Testing)	1300 ppb	220 ppb	1300 ppb
Typical Source of Contamination: Corrosion of household plumbing fixtures and systems			
Lead (2021 Testing)	15 ppb	3.2 ppb	0 ppb
Typical Source of Contamination: Corrosion of household plumbing fixtures and systems			

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.

Important information about 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. We are constantly evaluating alternatives and treatment options for reducing the arsenic levels to less than 10 ppb.

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 Mount St. Mary's University 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.**

Contaminants That May Be Present in Source Water:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. 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. 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.

Maryland ENVIRONMENTAL SERVICE

Polyfluoroalkyl Substances

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.

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. Testing results for the untreated groundwater sample collected from East Campus's well 3 on August 31, 2021, by MDE show presence of PFAS exceeding the EPA Health Advisory Level of 70 parts per trillion (70 ppt). The PFAS detections found in well 3 were 72.74 ppt. On September 21, 2021, two (2) follow-up samples were collected from well 3 and from the finished water leaving the MSMU water treatment plant. The follow up PFAS concentrations from well 3 were below the EPA Health Advisory and measured 59.11 ppt. The finished drinking water sample from the treatment plant were also below the EPA Health Advisory with Total PFOS/ PFOS results of 43.48 ppt. One last PFAS sample was collected from the finished water on November 13, 2021. The November finished drinking water sample from the treatment plant were also below the EPA Health Advisory with Total PFOS/ PFOS results of 48.0 ppt

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".

Water Conservation

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference—try one today and soon it will become second nature.

- Check for water leaks by the reading your water meter before and after a two hour period when no water is being used in your home. If the reading changes then there is probably a leak in your home.
- Take a shower! Filling up a bathtub can use up to 70 gallons of water while a shower generally uses 10 to 25 gallons. Taking shorter showers saves even more water.
- Make sure your washing machine and dishwasher are fully loaded before running.
- Are you in the market for a new water fixture such as a faucet, showerhead or toilet? Consider a WaterSense labled fixture and reduce your water use by 30% percent or more versus standard flow fixtures. Visit *www.epa.gov/watersense* for more information on water efficiency products and methods.