

# Annual Drinking Water Quality Report

MD0100010

TOWN OF EMMITSBURG

Annual Water Quality Report for the period of January 1 to December 31, 2022

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

TOWN OF EMMITSBURG is Surface Water

For more information regarding this report contact:

Name JARED BRANTNER  
Phone 301-447-6421

Este informe contiene informaci6n muy importante sobre el agua que usted bebe. Traduzcalo 6 hable con alguien que b entienda bien.

## 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.

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 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 (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 storm water 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 by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 (800-426-4791).

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. We are responsible for providing high quality drinking water, but we 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>.

## Source Water Information

SWA = Source Water Assessment

Source Water Name		Type of Water	Report Status	Location
EMMITSBURG WELL 1 FR690288	FR690288	GW	y	EMMITSBURG
EMMITSBURG WELL 2 FR035425	FR035425	GW	y	EMMITSBURG
EMMITSBURG WELL 3 FR650432	FR650432	GW	y	EMMITSBURG
EMMITSBURG WELL 4 FR941117	FR941117	GW	y	NEAR 4 W OF EMMITSBURG APPROX. 290 FT N OF HAMPTON VALLEY RD
EMMITSBURG WELL 5 FR733572	FR733572	GW	y	NEAR 2 MI W OF EMMITSBURG APPROX. 1 MI N OF HAMPTON VALLEY RD
RAINBOW LAKE	01-WTP WELLS 1 2 3 5	SW	y	_____

## Lead and Copper

### Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Lead and Copper	Likely Source of Contamination
Copper	09/08/2022	1.3	1.3	0.027	0	ppm	Copper	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

## Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Maximum Contaminant Level or 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.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Maximum Contaminant Level Goal or 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.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum residual disinfectant level or 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 or 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.
na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

## Water Quality Test Results

Treatment Technique or TT:

A required process intended to reduce the level of a contaminant in drinking water.

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2022	1.1	1 - 1.1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAAS)	2022	20	7.8-31.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	45	26.9 - 60.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.01	0.01 - 0.01	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2022	0.3	0.3 - 0.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	05/04/2021	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

## Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	5 NTU	0.74 NTU	N	Soil runoff.
Lowest monthly % meeting limit	1.0 NTU	98%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

# Annual Drinking Water Quality Report

MD0100019

MOUNT SAINT MARYS UNIVERSITY

Annual Water Quality Report for the period of January 1 to December 31, 2022

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MOUNT SAINT MARYS UNIVERSITY is Ground Water

For more information regarding this report contact:

Name \_\_\_\_\_

Phone \_\_\_\_\_

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## Source Water Information

SWA = Source Water Assessment

Source Water Name		Type of Water	Report Status	Location
WELL 3 FR738096	FR738096	GW	y	NEAR 2.5 MI SW OF EMMITSBURG APPROX. 1 MI E OF US 15
WELL 5 NOPERMIT		GW	y	_____
WELL 6 FR738105	FR738105	GW	y	NEAR 1 MI SW OF EMMITSBURG APPROX. 300 FT N OF COLLEGE LA

**Water Quality Test Results**

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
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na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
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Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2022	1.3	1.1 - 1.3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAAS)	2022	3	1.2 - 5.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	13	9.3 - 17	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	4	0 - 6.43	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.63	0.31 - 0.63	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2022	9.4	0 - 9.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2022	0.44	0 - 0.44	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	2	0 - 2.8	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2022	4.1	0 - 4.1	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2022	3.6	0.9 - 3.6	0	5	pCi/L	N	Erosion of natural deposits.

<b>Gross alpha excluding radon and uranium</b>	2022	11	2.8-13.4	0	15	pCi/L	N	Erosion of natural deposits.
<b>Uranium</b>	2022	11.0856	6.3772 - 11.0856	0	30	ug/l	N	Erosion of natural deposits.

PFAS Compound	Proposed Limits	Emmitsburg*	Mount St. Mary's University**	
		Level Detected	Well 3 & 5	Well6
PFOA	4.0 ppt	ND	27.5 ppt	5.86 ppt
PFOS	4.0 ppt	ND	33.2 ppt	4.91 ppt
PFHxS	Hazard Index (9 ppt)	ND	9.02 ppt	2.86 ppt
PFNA	Hazard Index (10 ppt)	ND	2.14 ppt	ND
PFBS	Hazard Index (2000 ppt)	ND	8.06 ppt	3.4 ppt
Calculated Hazard Index (1.0 unitless)		ND	1.22	0.32

ND: not detected

\*Samples were collected in 2021.

\*\*Samples were collected in 2022.

# TOWN OF EMMITSBURG

## WATER

A source water assessment has been performed by the Maryland Department of the Environment and is accessible on their website at:

[https://mde.maryland.gov/programs/Water/water\\_supply/Source\\_Water\\_Assessment\\_Program/Pages/by\\_county.aspx](https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx)

PFAS - or 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. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. In March 2023, EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs or Hazard Index. EPA will publish the final MCLs and requirements by the end of 2023 or beginning of 2024. Additional information about PFAS can be found on the MDE website:

[mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx](https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx)

The Town of Emmitsburg also purchases water from Mount ST Mary's, around 14,000 gal per day.

Please note that the Town of Emmitsburg had no violations in all samples for year 2022.