

# *Annual Drinking Water Quality Report for 2022*

**Town of St. Michaels**

**April, 2023**

**PWSID 0200006**

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you 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. We are committed to ensuring the quality of your water.

Our water source is two active wells which draw from an underground source known as the Aquia Aquifer. The depth of our wells are approximately 465 feet. The earth between the surface and this underground aquifer helps to purify the water before it actually reaches the aquifer, making it easier for us to treat before we pump it into our water distribution system.

This report shows our water quality and what it means.

We have a source water protection plan available from our office that provides more information such as potential sources of contamination. This plan is also available through the Talbot County Public Library and from Maryland Department of the Environment (MDE). For more information call 1-800-633-6101.

***Results of the assessment can be found on the MDE website:***

[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)  
[X](#)

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If you have any questions about this report or concerning your water utility, please contact **Brian Thompson** at (410) 745-9535. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Town Commission meetings which are held on the second and fourth Wednesday of each month beginning at 6:00 p.m. in the St. Michaels Town Office Meeting Room.

The Town of St. Michaels routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2022, or as otherwise indicated. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present.

*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

- *Parts per trillion (ppt) or Microgram per liter-* one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is 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 Contaminant Level Goal* - The “Goal”(MCLG) is 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.

<b>TEST RESULTS</b>						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Stage 2 Disinfection Byproducts:</b>						
Haloacetic Acids (Distribution) (2022)	N	1	ppm	4	4	By-Product of drinking water disinfection
TTHM (Distribution) (2022) (Total trihalomethanes)	N	10	ppb	0	80	By-product of drinking water disinfection
<b>Radioactive Contaminants</b>						
Beta/photon emitters (2016)	N	9	pCi/L	0	50	Decay of natural and man-made deposits
<b>Inorganic Contaminants</b>						
Arsenic (quarterly) Highest Running Annual Average (2022)	Y	0.0-17.2 13	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Copper (Distribution) (2022)	N	0.0328	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Barium (2022)	N	0.0046	ppm	2	2	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Chromium (2022)	N	6.6	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (2022)	N	0.4	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Disinfectant</b>						
Chlorine (2022)	N	0.3	ppm	4	4	Water Additive used to control microbes

<b>Synthetic organic contaminants including pesticides and herbicides</b>						
Ethylene dibromide (2021)	N	10	ppt	0	50	Discharge from petroleum refineries

Note: Test results are for year 2022 unless noted otherwise; testing for all contaminants is not required annually.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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. Saint Michaels is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Saint Michaels at 41-745-9535. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

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. PFOA and PFOS concentrations from samples taken from our water system in 2022 were non detect parts per trillion (ppt) and non detect ppt, respectively. 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)

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 increased risk of getting cancer.

\* The Town of St. Michaels has secured a loan to make improvements to the #2 and #3 wells. Johnston Construction Company has completed the rehabilitation at the #2 and #3 wells in St Michaels. A new green sand filter is in place at the #2 well and a 25,000 gallon back wash tank has been installed at the #3 well and the well is currently in operation.

## **Violation**

**Arsenic MCL, Average 4/1/2022-6/30/22 Water samples showed that the amount of contamination in our drinking water was above the standard. (called a maximum contaminant level and abbreviated MCL) for the period indicated.**

**Arsenic MCL, Average 7/1/2022-9/30/22 Water samples showed that the amount of contamination in our drinking water was above the standard. (called a maximum contaminant level and abbreviated MCL) for the period indicated.**

**Arsenic MCL, Average 10/1/2022-12/30/22 Water samples showed that the amount of contamination in our drinking water was above the standard. (called a maximum contaminant level and abbreviated MCL) for the period indicated.**

The Maryland Rural Water Association's State Circuit Rider assisted with the completion of this report.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.