

THE TOWN of OXFORD, MARYLAND

Annual Drinking Water Quality Report For 2017

For the period January 1 to December 31

The Commissioners of Oxford are pleased to present this year's *Annual Drinking Water Report*. This report is designed to inform you about the quality water 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.

The source of our drinking water is the Aquia Aquifer, which lies approximately 500 feet below the earth's surface. An aquifer is a sort of underground river, which is tapped by drilling wells and pumping the water to the surface for distribution. The earth between surface sources of contamination and this underground river helps to purify the water before it actually reaches the aquifer, making it easier for us to treat before we pump it into your water distribution system. 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 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.

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.

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 & components associated with service lines and home plumbing. The Town of Oxford 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 and 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>.

We are pleased to report that our drinking water is safe and meets federal and state requirements. On August 17, 2009 the Town of Oxford went online with a new arsenic reduction system. The Town of Oxford is required quarterly monitoring for arsenic. We routinely monitor for the presence of contaminants in drinking water.

The Town of Oxford discontinued the use of well #1 on Tilghman Street in 2010. The well was capped & is being used as a monitoring well for USGS for aquifer study's only.

The following report is provided in compliance with federal regulations and will be provided annually. This report outlines the quality of our finished drinking water and what that quality means.

If you have any questions about this report or concerning your water utility, please contact the Oxford Commissioners Office at 410-226-5122. 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 meetings. They are held on the second and fourth Tuesday of every month, beginning at 6:00 PM, at the Oxford Community Services Building which is located at 101 Market Street in Oxford.

The Town of Oxford’s Public Works Department routinely monitors for constituents in your drinking water according to Federal and State laws. The tables on the following pages show the results of our monitoring.

In this report, 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:

Definitions

AVG - Regulatory compliance with some MCLs are based on running annual average of monthly samples

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years, a single penny in \$10,000, or 1 inch in 16 miles.

Parts per billion (ppb) or Micrograms per liter(ug/l) - one part per billion corresponds to one minute in 2,000 years, a single penny in \$10,000,000, or one ounce in 7,350,000 gallons of water

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

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.

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.

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.

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. Note: The State of Maryland requires that community water systems apply a disinfectant and maintain a disinfectant residual throughout the distribution system. The Town of Oxford utilizes chlorine for this purpose.

Maximum Residual Disinfectant Level Goal (MRDLG)- The level of 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.

MRM: Millirems per year (a measure of radiation absorbed by the body)

Treatment Technique or TT – A required process intended to reduce the level of contaminant in drinking water

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Beta/photon emitters			pCi/l	0	50	Decay of natural and man-made deposits
Well 2 (2008)	N	5.3				
Well 3 (2008)	N	5.3				
Alpha emitters			pCi/l	0	15	Erosion of natural deposits
Well 2 (2008)	N	2				
Well 3 (2008)	N	2				

Inorganic Contaminants						
Arsenic 2017 Well 2(average) 2017 Well 3 (average)	N N	8 8	ppb	n/a	10 ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Copper (Distribution) 06/10/2016	N	0.10	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride 2017 Well 2 Well 3	N N	1.92 1.92	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (Distribution)	N	0.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Antimony Well 2 Antimony Well 3	N N	2 2	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Synthetic Organic Contaminants including Pesticides and Herbicides						
Di(2-ethylhexyl) phthalate	N	3.5	ppb	0	6	Discharge from rubber and chemical factories
Volatile Organic Contaminants						
TTHM (Distribution) [Total trihalomethanes]	N	10	ppb	No goal	80	By-product of drinking water chlorination
Regulated Contaminants						
Chloroform (well 2) (2009)	N	0.5	ppb	N/A	N/A	By-product of drinking water chlorination
Bromoform (well 2) (2009)	N	0.5	ppb	N/A	N/A	By-product of drinking water chlorination
Bromodichloromethane (well 2) (2009)	N	0.5	ppb	N/A	N/A	By-product of drinking water chlorination
Dibromochloromethane (well 2) (2009)	N	0.5	ppb	N/A	N/A	By-product of drinking water chlorination
Chlorine Disinfectant Residual (range)	N	1.2 – 1.4	ppm	4	4.0 (MRDL)	Water additive used to control microbes
pH (range)		7.9 – 8.6	Standard units		N/A	

Note: Test results are for CY 2017 unless otherwise noted. All contaminants are not required to be tested for annually.

Health Effects Statement for Arsenic Levels Exceeding 10 ppb: 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.

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 or visiting the EPA Drinking Water Website @ www.epa.gov/safewater.** Information related to drinking water can also be obtained at the Maryland Department of Environment website at www.mde.state.md.us

The presence of some contaminants in drinking water is unavoidable, but we make every effort to keep our water at or below the levels specified by law as being safe for consumption. Our Public Works Department staff consists of six full time employees. Four who are state certified water system operators and have a combined experience of more than 60 years. Each year our staff attends required state approved continuing education in an effort to keep up-to-date with the latest techniques in water treatment and distribution. Our mission is to provide you with a continuous supply of the best possible quality water. In order to do this, we maintain

a professional and qualified staff.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We must set our water rates so that the system pays for itself without subsidy from property tax revenues.

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 of 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).

Thank you for allowing us to continue providing you and your family with safe, quality water this year. If you have any questions or comments, please contact us.

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Note: Copies of previous year's reports are still available. To request a copy, call 410-226-5122.

Commissioners of Oxford

May 2018