

## Annual Drinking Water Quality Report 2018

The City of Crisfield, Maryland 2018 PWSID# 190001

April, 2019

We're 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 several Aquifers which are the Maggothy, Paleonce, and Raritan, which lie about 900 to 1320 feet below the earth's surface. An aquifer is a sort of underground reservoir or deposit of water, which is tapped by drilling wells and pumping the water to the surface for distribution. The 900 feet of earth between surface sources of contamination and these underground rivers helps to purify the water before it actually reaches the aquifer, making it easier for us to treat before we pump it into the water distribution system. **We are pleased to report that our drinking water is safe and meets federal and state requirements. The following report is provided in compliance with federal regulations and has been provided annually since 1999. This report outlines the quality of our finished drinking water and what that quality means. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune/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 Public Utilities Chief Operator DJ Parkinson (410) 251-0113.** 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 Mayor and Council meetings. The City of Crisfield's Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The tables on the following pages show the results of our monitoring for the period of January 1st to December 31ST, 2018. 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 contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

**Definitions:** 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: Non-Detects (ND)- laboratory analysis indicates that the constituent is not present. 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. 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 treatment technique is a required process intended to reduce the level of a contaminant in drinking water. Maximum Contaminant Level (MCL) - The Maximum Allowed is the highest level of a contaminant that is allowed in drinking water. MCL are set as close to the MCLG as feasible using the best available treatment technology, Maximum Contaminant Level Goal (MCLG) -The Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety.

Contaminant	Violation Y/N	Test Results		MCLG	MCL	Likely Source of Contamination
		Level Detected	Unit Measurement			
<b>Inorganic Contaminants</b>						
Copper (2017 (Distribution)	N	ND	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead (2017 (Distribution)	N	1	Ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Chlorine(2018	N	0.4	Ppm	4	4	Water additive used to control microbes
Fluoride(2016	N	2.9	Ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Radioactive Contaminants</b>						
Beat/photon emitters (2017)	N	8.1	pCi/1	0	50	Decay of natural and man-made deposits
Alpha emitters (2017)	N	11.4	pCi/1	0	15	Erosion of natural deposits
<b>Volatile Organic Contaminants</b>						
TTHM (Distribution 2018) [Total trihalomethanes]	N	1	Ppb	0	80	By-product of drinking water chlorination
Note: Test results are for 2018 unless otherwise noted; these are the most recent available results						

**NOTE: As can be seen by results listed in the above tables, lead, which is tested for triennially (every 3 years) at City of Crisfield, has been detected in our most recently collected samples in 2017. 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 City of Crisfield 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>.**

The wells supplying the water to the City of Crisfield are from 900 to 1455 feet deep. The aquifers that supply the water are known as the Potomac Group and the Brightseat formations. Between the land surface and the deep aquifers are several layers of natural clay materials. These layers protect the aquifers from contamination that may come from the land surface. Compared to many other wells used for water supplies, these wells have a very high degree of protection from man-made contamination. As a result, the chemical constituents in the water provided by these deep wells are naturally occurring. For nitrates and the other constituents that were detected at levels lower than the allowable MCL, it is important to understand that the EPA has determined that drinking water IS safe at these allowable levels. MCLs are set at very stringent levels. To experience the possible health effects described for many of the regulated contaminants, a person would have to drink 2 liters of water every day containing a constituent at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. The City also checks for Total coliform in the distribution system each month at five different sites. This is a requirement and also helps assure safe quality water for you the consumer as does this entire test done on the City's Water system.

The City also checks for fluoride in its wells each year and if the results are above 2.0 ppm the secondary standard for fluoride then this notice has to be issued. The purpose of the notice is to provide information about the fluoride concentration and its potential effects in the drinking water supplied by the City of Crisfield. Recent sampling indicates that the secondary standards for fluoride continue to be exceeded in the water supplied by the City.

This is a notice about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system [name] has a fluoride concentration of [insert value] mg/l.

Dental fluorosis in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

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.

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 Water Department staff consists of three operators who have a combined experience of more than 30 years between them. Together they have attended more than 20 hours of Continuing Education training in the past year in an effort to keep up-to-date with the latest in water treatment techniques to provide you with the best quality water possible. The provision of quality water is an on-going effort for the City of Crisfield and its staff. And is an area in which we are continuously trying to improve upon.

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. In this way, the cost of the water service can be borne by those who actually use water rather than just by the property owners.

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. This report is also available at the Library, Post office, City Hall and on Line at the City of Crisfield's Web site at [www.cityofcrisfield-md.gov](http://www.cityofcrisfield-md.gov), for review. Thank you.

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