FREDERICK
MARYLAND

Annual Drinking Water Quality Report

Public Water System
ID # MD0100015

The City of Frederick is pleased to present you with our updated Annual Drinking Water Quality Report. This consumer confidence report (CCR) is designed to provide information about the source and quality of your drinking water. The tap water supplied during the past calendar year once again met or surpassed all of the Environmental Protection Agency (EPA) standards for safe drinking water. There were no contaminant level violations. The City of Frederick continually strives to provide the highest quality of drinking water for our residents, businesses, and visitors, and during this challenging year our dedicated staff of water service employees continued to provide the clean and dependable tap water needed by all of our customers. The tables in this report summarize monitoring data for the calendar year of 2020. We hope you find this report about your drinking water informative.

Testing Requirements

The State of Maryland and the EPA require community water suppliers to perform contaminant testing on their drinking waters and to report the results on a regular basis. These regulatory requirements are based upon the current federal *Safe Drinking Water Act* (SDWA) and are designed to ensure the quality of your drinking water. This annual summary is prepared after the end of each calendar year to keep our consumers informed. Once updated, the report gets posted to the City website for viewing, and public notices of availability are made no later than June 30 of each year.

About the Data

Most of the test data shown in the tables is from samples collected during 2020, but some contaminants are not monitored for every year. Data not from 2020 will be noted. Reported test data is a compilation of all City water sources. Many contaminants were tested for but not detected. These include organic chemicals such as industrial solvents and pesticides; inorganics, like metals; and radioactive compounds, like radon. If you have questions about contaminants not listed, or have other questions about the City's monitoring program, call 301-600-1473 for technical support.

Contaminant Information

Although there were detections of some contaminants in City water, all of those found were at safe levels. All drinking water sources are subject to potential contamination by substances that occur naturally or are human-made. As water travels over the surface of the land or through the ground, some of these substances can be picked up and transported with the water. These can be microbes, organic or inorganic chemicals, or radioactive substances. All drinking water, including bottled water, may 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 can be obtained from the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791), or at the EPA website www.epa.gov/safewater.

Precautions For Vulnerable Populations

The City of Frederick reminds those who may have weakened immune systems that any drinking water (tap or bottled) should not be considered sterile. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those undergoing chemotherapy, those who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from microbial infections. These people should seek advice about drinking water from their healthcare providers. Guidelines developed by the EPA and Centers for Disease Control (CDC) on ways to lessen the risk of infection from microbial contaminants like Cryptosporidium are available by calling the Safe Drinking Water Hotline at 800-426-4791 or visiting www.epa.gov/safewater.

Information About Lead In Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from service lines and home piping that contains lead components. The City of Frederick is responsible for providing high quality drinking water, but cannot control the materials used in all 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 two minutes before using the water for drinking or cooking. City water meets all current lead contamination standards, but if you are concerned about lead in your tap water, you may want to have your water tested. More information on lead in drinking water is available from the EPA Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

Source Water Assessments

The Maryland Department of Environment (MDE) has completed source water assessments on the vulnerability of all State water sources to contamination. Contaminants of concern for City sources include disinfection byproducts precursors, sediment, herbicides, and coliform bacteria. For more information about or copies of the full assessment reports, you may call the Maryland Department of Environment - Source Protection Division at 410-537-3714 or the technical information number listed under the City contacts section.

City Water Sources

During 2020, The City of Frederick utilized three different water sources to supply our service area. You may have received your drinking water from any one of these sources or a mixture of them depending upon your location within our service area. The average daily usage from sources shown was approximately **6.06** million gallons per day. The percentage of drinking water supplied by each of these sources is provided to the right.

68% **Linganore Creek source**

19% **Potomac River source**
(via Frederick County Interconnection)

13% **Fishing Creek source**

Definitions of Abbreviations and Terms Used in This Report

In the data tables, you will see terminology and acronyms with which you may not be familiar. To help you understand this information, please note the following definitions:

MCLG - ***Maximum Contaminant Level Goal*** - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety. These goals represent a target level for a contaminant that is not necessarily achievable with current standard treatment technologies

MCL - ***Maximum Contaminant Level*** - The highest level of a contaminant that is allowed in drinking water, based on present regulations as set by the EPA. To protect the public health, MCLs are set as close to the MCLGs as feasible, based on the best treatment technology currently available

AL - *Action Level* - The concentration of a contaminant, which, if exceeded, triggers special treatment or other requirements to be followed. Action levels function as a type of MCL.

LRAA - Locational Running Annual Average - Applies to disinfection byproducts. Quarterly test results from each sample location are used to calculate a running annual average for compliance monitoring at each representative sample site.

TT - ***Treatment Technique*** - A required process intended to reduce the level of a specific contaminant in drinking water

NTU - ***Nephelometric Turbidity Unit*** - A measure of the cloudiness or clarity of the water

PPM - ***Parts Per Million*** - Unit of measure meaning one part contaminant in one million parts water (equivalent to milligrams per liter)

PPB - ***Parts Per Billion*** - Unit of measure meaning one part contaminant in one billion parts water (equivalent to micrograms per liter)

PPT - ***Parts Per Trillion*** - Measurement unit meaning one part contaminant in one trillion parts water (equivalent to nanograms per liter)

POE - **Point of Entry** - Means the location where fully treated water enters the distribution system.

NA- Means ***Not Applicable***

ND - ***Not Detected*** - at the lowest method detection limit referenced by the testing lab or EPA.

MRDL - *Maximum Residual Disinfectant Level* - The highest level of disinfectant allowed in drinking water. The City of Frederick currently uses free chlorine to disinfect our drinking water.

Regulated Contaminants - City Water Plants 2020

CCR—PWSID # MD0100015				DATA FROM ALL TREATED POINTS OF ENTRY (POE)		
CONTAMINANT	**UNITS**	**MCLG**	**MCL**	**REPORT RESULT[1]**	**RANGE[2]**	**VIOLATION**
FLUORIDE	PPM	4	4	**0.6**	0.26 - 0.65	No
NITRATE	PPM	10	10	**1.8**	ND - 1.8	No
BARIUM	PPM	2	2	**0.03**	ND - 0.034	No
ATRAZINE	PPB	3	3	**0.46**	ND - 0.46	No
SIMAZINE	PPB	4	4	**0.21**	ND - 0.21	No
DICHLOROMETHANE	PPB	0	5	**3.19**	0.67 - 3.19	No
MAXIMUM TURBIDITY (TT)	NTU	0.00	1.00	**0.39**	0.02 - 0.39	No
MONTHLY TURBIDITY (TT) % OF VALUES > 0.3 NTU	%	0	5	**0.3**	N/A	No
TOTAL ORGANIC CARBON (TT)	%	N/A	N/A	**Met % Removal Requirements**	N/A	No

1.Result column shows the reportable value as defined by EPA guidance which can be either a maximum or an average value.
2. Range shows the highest and lowest reported test values when more than one sample was tested during the calendar year.
3. **N/A** in table means not applicable to that contaminant and **ND** in table means Not Detected at minimum detection limits.

Regulated Contaminants - City Distribution System 2020

CONTAMINANT	**UNITS**	**MCLG**	**MCL**	**REPORT RESULT**	**RANGE**	**VIOLATION**
COLIFORM BACTERIA	%	0	5	**0**	NA	No
CHLORINE (MRDL)	PPM	4	4	**1.1**	0.7 - 1.6	No
TOTAL TRIHALOMETHANES (THM)[1]	PPB	NA	80	**61**	23 - 72	No
TOTAL HALOACETIC ACIDS (HAA)[1]	PPB	NA	60	**38**	20 - 59	No
COPPER[2] (AL) 2018 data	PPB	1300	1300	**73**	5.2 - 120	No
LEAD[2] (AL) 2018 data	PPB	0	15	**< 1.0**	< 1.0 - 20	No

1.Result shown for THM and HAA are the highest Locational Running Annual Averages (LRAA) calculated by MDE for reporting period.
2. Tests for Lead and Copper were last made during 2018, and are scheduled to be performed again during summer of 2021. Result values for lead and copper represent the 90th percentile values from a total of 30 high risk sites tested. Only 1 site tested above the Lead AL.

Regulated Contaminant Source Information

CONTAMINANT	TYPICAL SOURCE OF CONTAMINANT
BARIUM	Erosion of natural barium deposits in the watershed
CHLORINE	Disinfectant additive which controls growth of microbes in water
FLUORIDE	Additive which promotes strong teeth and reduces incidence of cavities
NITRATE	Runoff from fertilizer use; sewage treatment plant discharge; leachate from septic systems; natural deposits within the watershed
LEAD	Corrosion of plumbing systems that have lead components
COPPER	Corrosion of plumbing systems that have copper components
DICHLOROMETHANE (DCM)	Runoff from chemical solvent products like paint removers
ATRAZINE	Runoff following the use of this herbicide in the watershed
SIMAZINE	Runoff following the use of this herbicide in the watershed
TURBIDITY	Runoff of soil and other particles; Turbidity measurements are used to gauge the effectiveness of our water filtration systems
TOTAL TRIHALOMETHANES (TTHM)	By-products of drinking water chlorination. TTHM group Includes bromo-form, bromodichloromethane, chlorodibromomethane, and chloroform
TOTAL HALOACETIC ACIDS (HAA5)	By-products of drinking water chlorination. Includes mono and dichloro- aceticacid, mono and dibromoaceticacid, trichloroaceticacid
TOTAL ORGANIC CARBON (TOC)	Natural and manmade sources. Reducing TOC levels prior to addition of disinfectants helps lower the formation of disinfection byproducts.

Unregulated Contaminant Monitoring Rule Detections* (UCMR4) — 2020

CONTAMINANT	UNITS	MCL	REPORT AVG.	RANGE	SAMPLE LOCATION	TYPICAL SOURCE
Manganese	PPB	None	**2.3**	0.0 - 9.5	CITY POEs	Corrosion of plumbing
Haloacetic Acids (HAA5)	PPB	None	**33.9**	19.0 - 53.3	DISTRIBUTION SYSTEM	Disinfection Byproduct
Haloacetic Acids (HAA6Br)	PPB	None	**8.3**	2.3 - 17.1	DISTRIBUTION SYSTEM	Disinfection Byproduct
Haloacetic Acids (HAA9)	PPB	None	**41.5**	23.0 - 58.0	DISTRIBUTION SYSTEM	Disinfection Byproduct

1. HAA5 group consists of : Monochloroacetic Acid, Dichloroacetic Acid, Monobromoacetic Acid, Dibromoacetic Acid, plus Trichloroacetic Acid.

2. HAA6Br group consists of: Bromochloroacetic Acid, Bromodichloroacetic Acid, Dibromoacetic Acid, Dibromochloroacetic Acid, Monobromo acetic Acid, and Tribromoacetic Acid.

3. HAA9 group consists of: All HAA6Br compounds, plus Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid.

* Unregulated Contaminant Monitoring helps EPA determine where certain contaminants occur and if it needs to regulate those contaminants.

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The City of Frederick

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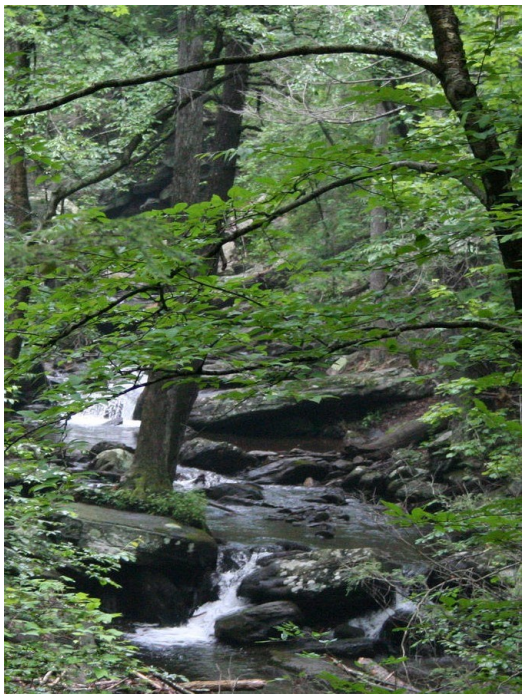

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Public Involvement Opportunities

The public is encouraged and invited to participate and provide input on drinking water or other issues. Information on Mayor and Board of Aldermen Public Meetings can be obtained by calling the City public information phone line at 301-600-1380 or online at cityoffrederickmd.gov.

City Water Report Contacts

To request a paper copy of this report or for general information, call 301-600-1681

For technical information on contaminant testing or results, call 301-600-1473.

For information on our water treatment plants or processes, call 301-600-1186

Un mensaje para nuestros clientes de habla español

Este informe contiene información importante sobre su agua potable. Favor busque a alguien que pueda traducirlo para usted o explicar su contenido, ya que es algo muy importante.