Annual Drinking Water Quality Report

EASTERN REGION ALLEGANY DISTRIBUTION CENTER

MD001-0005 Eastern Region (Cumberland)

Annual Water Quality Report for the period of January 1 to December 31, 2018

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.

The source of the drinking water used by
EASTERN REGION ALLEGANY DISTRIBUTION SYSTEM is purchased Surface Water.

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Source 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.

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, 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.

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.

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 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 woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. 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 the 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

Source Water Name		Type of Water	Report Status	Location
CC-MD0010008-TP01	PURCHASED - MD0010008	SW	N	

2018 Regulated Contaminants Detected

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.
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	2018	0.4	0.1 - 0.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2018	34	0 - 44.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2018	44	17.57 - 60.77	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
Nitrate [measured as Nitrogen]	03/21/2017	0.43	0.42 - 0.43	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	03/21/2017	0.01	0.01 - 0.01	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

What You Should Know About Your Drinking Water Supply

Published by the City of Cumberland – Utilities Division

2019 Water Quality Report

Maryland Public Water Service Identification Number – 0010008
Pennsylvania Public Water Service Identification Number - 4050028
In Accordance with the U.S. Environmental Protection Agency
National Primary Drinking Water Regulation 40 CFR 141

Introduction: The City of Cumberland is pleased to present to you this year's Annual Water Quality Report detailing all contaminant information collected between January 1 and December 31, 2018. The report is designed to inform you about the quality water services delivered to you every day. Our goal is to provide you with a safe and dependable drinking water supply. We want you to be aware of the efforts we make to continually improve the water treatment process and to protect our water resources. The City of Cumberland analyzes its drinking water for all parameters outlined in the National Primary Drinking Water Regulation: Consumer Confidence Report 40 CFR 141 unless a waiver has been granted by Maryland Department of the Environment and/or Pennsylvania Department of Environmental Protection. The City also analyzes for many unregulated chemical compounds. Parameters and compounds that were detected in treated water over the calendar year are displayed in the **2018 Water Quality Data Chart**.

Where Does Your Drinking Water Originate: The water for the City of Cumberland is surface water originating from the Lake Koon and Gordon reservoirs located in the Cumberland Valley Township, Bedford County, Pennsylvania. The primary tributaries supplying water to the reservoirs are Evitts Creek, Growden Run, Oster Run as well as several unnamed tributaries.

Water Treatment: Surface water treatment facilities like Cumberland's are designed and operated to take a raw water source of variable quality and produce consistent high quality drinking water. Multiple treatment processes are provided in series and each process represents a barrier to prevent the passage of particulate matter, cysts and other microbial contaminants. Our Water Treatment Facility utilizes barriers which include clarification, filtration, and disinfection.

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 pickup substances resulting from the presence of animals or from human activity. 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 accordance with the Drinking Water Act Amendments, Maryland Department of the Environment and Pennsylvania Department of Environmental Protection has prepared a **Source Water Assessment Plan** for the Evitts Creek Watershed. The Plan evaluates the existing land use and water quality conditions, describes potential contamination threats as well as providing background to support ongoing efforts to protect the watershed through the Evitts Creek Steering Committee (ECSC). The ECSC meets on a quarterly basis. Contact the Cumberland Engineering Division at 301-759-6604 for meeting times and more information.

Water Conservation: Our water resources are not unlimited – they are affected everyday by precipitation, population growth, economic development and pollution. The most cost-effective way to protect your water resources is through conservation. For more information on water usage and conservation practices, please contact the Cumberland Engineering Division at 301-759-6604. Visit http://www.epa.gov/watersense/ for water conservation tips, facts, information, and online activities for you and your family.

City of Cumberland
Maryland Public Water Service # 0010008 - Pennsylvania Public Water Service Identification # 4050028
Data for both MD and PA water distribution systems unless otherwise noted
2018 Water Quality Data Chart

Regulated Parameters	Units	Amount Detected	Range of Detection LOW-HIGH	Ideal Goals (EPA's MCLG)	Highest Level Allowed (EPA's MCL)	Violation	Typical Sources of Contaminant
Water Treatment Facility (Point of Entry)							
Turbidity (max)	NTU	0.14	0.02 - 0.14	N/A	1	no	Soil run-off. Turbidity is a measurement of cloudiness of the water caused by suspended particles and is monitored as an indicator of water quality and effectiveness of filtration.
Turbidity Samples <0.3	%	100	100	N/A	95	no	
Barium	ppm	0.034	0.034	2	2	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate	ppm	0.34	0.34	10	10	no	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ave)	ppm	0.61	0.50 - 0.70	4	4*	no	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
**PA DEP maximum contaminant level for Fluoride is 2 ppm*							
Gross Alpha (2015)	pCi/L	2.96	2.96	0	15	no	Erosion of natural deposits
Total Organic Carbon	N/A	met TT**	N/A	N/A	TT	no	Naturally occurring in the environment
***Total Organic Carbon Treatment Technique (TT) compliance was achieved through a waiver obtained from Maryland Department of the Environment and Pennsylvania Department of Environmental Protection. As per CFR 141.135(a)(2) an alternative Step 2 TOC removal requirement was provided in consistency with all other National Primary Drinking Water Regulations.*							
Maryland Distribution System							
Chloramines (as Chlorine)	ppm	2.0	1.8 - 2.0	4	4	no	Water additive used to control microbes
Fluoride	ppm	0.3	0 - 0.58	4	4	no	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Copper (2017)	ppm	0.171	0.005 - 0.442	1.3	1.3 (AL)	no	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (2017)	ppb	0.9	<0.3 - 4.2	0	15 (AL)	no	
Total Trihalomethanes (LRAA)	ppb	47	28 - 66	N/A	80	no	By-product of drinking water disinfection
Haloacetic Acids (LRAA)	ppb	38	9 - 47	N/A	60	no	
Total Coliform Bacteria	count	0	0	0	>1	no	Naturally present in the environment
Benzo(a)pyrene	ppt	100	0 - 110	0	200	no	Leaching from linings of water storage tanks and distribution lines
Pennsylvania Distribution System							
Chloramines (as Chlorine)	ppm	2.5	2.3-2.7	4	4	no	Water additive used to control microbes
Copper (2016)	ppm	0.088	<0.010-0.058	1.3	1.3 (AL)	no	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (2016)	ppb	0.003	<0.001-0.006	0	15 (AL)	no	
Total Trihalomethanes	ppb	44	44	N/A	80	no	By-product of drinking water disinfection
Haloacetic Acids	ppb	42	42	N/A	60	no	
Total Coliform Bacteria	count	0	0	0	>1	no	Naturally present in the environment

2018 Water Quality Data Chart (continued)							
Parameters	Units	Amount Detected	Range of Detection	EPA's MCLG	EPA's MCL	Violation	Typical Sources of Contaminant
Unregulated Parameters - Maryland & Pennsylvania							
Sodium	ppm	7.62	7.62	N/A	N/A	no	
Unregulated Contaminant Monitoring Rule							
Monobromoacetic Acid	ppb	1.63	0.372 - 1.63	N/A	N/A	no	
Dichoroacetic Acid	ppb	24.7	6.92 - 24.7	N/A	N/A	no	
Trichloroacetic Acid	ppb	33.1	15.2 - 33.1	N/A	N/A	no	
Bromochloroacetic Acid	ppb	1.65	1.10 - 1.65	N/A	N/A	no	
Bromodichlororacetic Acid	ppb	2.33	1.50 - 2.33	N/A	N/A	no	
Manganese	ppb	19.4	19.4	N/A	N/A	no	
EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).							
Source Water Supply (Lake Gordon)							
E. Coli (ave)	mpn	88.3	<1.0 - 1986	0	N/A	no	Human and animal fecal waste
Cryptosporidium (ave)	oocysts	0.042	0 - 0.5	0	N/A	no	Naturally present in the environment
Cumberland Water Treatment Facility tested for E. Coli & Cryptosporidium October 2016 - September 2018 to comply with the LT2 Enhanced Surface Water Treatment Rule. All results have been in the normal, expected ranges.							

DEFINITIONS
Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allows in drinking water. MCL's are set as close to the MCLG's as feasible using best available treatment technology
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety
Maximum Residual Disinfectant Level (MRDL) - Set by the USEPA -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
Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water
Waiver, Variance, or Exception - State or EPA permission not to meet an MCL or a treatment technique under certain conditions
NTU – Nephelometric Turbidity
pCi/L – Picocuries per liter (a measure of radioactivity)
ppb – Parts per billion
ppm – Parts per million
ppt - Parts per trillion
P/A – Presence/Absence
S.U. – Standard Units
LRAA - Locational running annual average
NA - Not Applicable
*Not more than one (1) positive sample if less than 40 samples collected

The Unregulated Contaminant Monitoring Rule

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This national survey is one of the primary sources of information on occurrence and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply.

General Drinking Water Information: 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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

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/Centers for Disease Control (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).

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. See the **2018 Water Quality Data Chart** that summarizes water testing results for the **2018** calendar year.

Additional Information Regarding Lead: In 1992 EPA created new standards for acceptable levels of lead and copper in drinking water. 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 Cumberland – Utilities Division is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components. 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. 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.

FOR MORE INFORMATION OR QUESTIONS: Please contact the City of Cumberland's Environmental Specialist at 301.759.6604 for additional information regarding this report. This information is also available at the City of Cumberland's web site at www.ci.cumberland.md.us .

Other water distribution systems in your area include:
LaVale Sanitary Commission at 301-729-1638
Allegany County Sanitary District at 301-777-5942

This Water Quality Report is also available at anytime via the web-link: http://tinyurl.com/cpshwod