

Maryland Water Service, Inc.
Highland Estates
System I.D. # 0010049

Your Annual Water Report

We are pleased to provide you with the 2016 Water Quality Report. This report is designed to inform you of the quality of water we delivered to you over the past year. Our goal is to provide you a safe and dependable supply of drinking water. We purchase your water from the City of Cumberland. Their water source is treated surface water obtained from the Lake Koon and Gordon reservoirs (*surface water*) 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.

How is Water Treated? Surface water treatment plants are designed 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. The Water Treatment Facility utilizes barriers which include clarification, filtration, and disinfection.

Source Water Assessment Plan (SWAP): 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(s) evaluate 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. The source for City of Cumberland's water supply is Lake Koon and Lake Gordon in which the watershed area consists of mixed land use with the majority consisting of forested land. The SWA area for the City of Cumberland's watershed was delineated using U.S. EPA approved methods specifically designed for each source. Potential sources of contamination within the assessment area were identified based on site visits, database reviews, and land use maps. Watershed information and water quality data were also reviewed. Figures showing land use and potential contaminant sources within the SWA area and aerial photographs of the watershed locations are enclosed in the full (SWA) report. The susceptibility analysis of the City of Cumberland's water supply was based on the review of the water quality data, potential sources of contamination, and other factors. At the time the report was compiled, it was determined that the City of Cumberland's water supply is susceptible to contamination by microbiological contaminants, protozoa, viruses, disinfection byproducts, and turbidity, but not susceptible to volatile organic compounds (VOCs), synthetic organic compounds (SOCs), radionuclides, and other regulated inorganic compounds (IOCs). If you would like to review the report or have any other questions or concerns regarding it please call our office at (844) 310-6660.

If you have any questions about this report or your water quality, please contact customer service at (844) 310-6660 or you can contact the City of Cumberland – Environmental Technician at (301) 759-6604 for additional information regarding the water quality results in 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 the LaVale Sanitary Commission (301) 729-1638 and Allegany County Sanitary Districts at (301) 777-5942.

Message From Steve Lubertozzi, President

Dear Maryland Water Service Customers,

I am pleased to share your Annual Water Report for 2016. As the local President of your community water utility, this communication is part of our continuing effort to emphasize to our customers that we fully understand our role in the local community. Additionally, I'm also pleased to let you know that we now have created a new, more 'user friendly' website just for our state at www.uiwater.com.

Our team is committed to providing safe, reliable and cost effective service to our customers. All of our employees share in our commitment to act with integrity, protect the environment, and enhance the local community.

We are proud to share this report which is based on water quality testing through December 2016. You will find that we supply water that meets or exceeds all federal and state water quality regulations.

These results don't happen by chance. Our dedicated local team of water quality experts is working in the community everyday ensuring that you, our customer, are our top priority and providing the highest quality drinking water and service - now and in the years to come.

Best regards,



Sign up for e-billing now at www.uiwater.com

The Safe Drinking Water Act was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

EPA Wants You To Know:

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 may pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- (i) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (ii) Inorganic contaminants, such as salts and metals, that may be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (iii) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (iv) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems.
- (v) Radioactive contaminants, which may be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.

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 may be obtained by calling the Environmental Protection Agency's 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/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 women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Maryland Water Service, Inc. 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 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>.

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.

The Environmental Protection Agency requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the tables below are the only contaminants detected in your drinking water.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

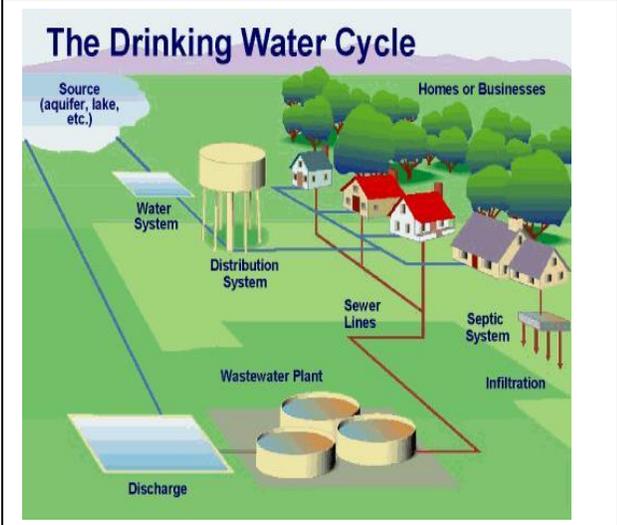


We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.

Drain Disposal Information: Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps/solids for disposal.

Prescription Medication and Hazardous Waste - Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Don't flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: <http://www.epa.gov/epawaste/conservematerials/hhw.htm>



Understanding This Report:

In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

- AVG – Average
- Not Applicable (N/A) – Information not applicable/not required for that particular regulated contaminant.
- Non Detects (ND) – laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used
- Standard units (S.U.) – standard units is a measurement of that particular regulated contaminant.
- Compliance Level (CL) – Is the value used to determine compliance with MCL or TT. The CL for contaminants can be a maximum test value, an average, or meeting a condition for a certain percentage of the time.
- Treatment Technique (TT) – a required process intended to reduce the level of a contaminant in drinking water.
- Intestinal Parasites – Microorganisms like Cryptosporidium and Giardia lamblia can cause gastrointestinal illness (e.g., diarrhea, vomiting, cramps). In 2004, two samples of untreated river water showed the presence of Giardia lamblia and Cryptosporidium. None were found in the treated drinking 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 (ug/l) - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.
- Action level (AL) – action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum contaminant level (MCL) - The maximum contaminant level is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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 health risk. MCLG's allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Goal (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 contamination.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Maryland Water Service, Inc. routinely monitors for contaminants in your drinking water according to Federal and State laws. Unless otherwise noted, the tables that follow show the results of our monitoring for the period of January 1st to December 31st, 2016. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data [e.g., for organic contaminants], though representative, are more than one year old. Data obtained before January 1, 2016, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

If You Have Questions Or Want To Get Involved?

Maryland Water Service, Inc. does not currently hold regular public meetings. Should the Utility hold a public meeting, you will be notified through the mail or public notice. Please call customer service at (844) 310-6660 if you have any questions. We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.

Highland Estates Distribution System

Disinfection By-Product Contaminants

Contaminant (units)	Sample Date	MCL/ MRDL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	2016	N	53.6	N/A	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	2016	N	49.3	N/A	N/A	60	By-product of drinking water disinfection
Chlorine (ppm)	2016	N	*1.75	0.2 - 2.0	MRDLG=4	MRDL=4	Water additive used to control microbes

*Based on a Running Annual Average (RAA)

Our system received monitoring waivers for: cyanide and asbestos.

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
2016 Water Quality Data Chart

Regulated Parameters	Units	Cumberland Water Filtration Plant	Ideal Goals (EPA's MCLG)	Highest Level Allowed (EPA's MCL)	Typical Sources of Contaminant
Turbidity (max. monthly avg.)	NTU	0.04	N/A	TT	Soil run-off
Turbidity (max. reported)	NTU	0.08	N/A	1.0	
Total Coliform Bacteria	P/A	A	0	*	Naturally present in the environment
Barium	ppm	0.033	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate	ppm	0.38	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Gross Alpha (2015)	pCi/L	2.96	0	15	Erosion of natural deposits
Ethylene Dibromide	ppt	10	0	50	Discharge from petroleum refineries
Total Organic Carbon	N/A	met TT **	N/A	TT	Naturally occurring in the environment
*Not more than one (1) positive sample if less than 40 samples collected					
**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 (avg)	ppm	1.9	MRDL 4	MRDL 4	Water additive used to control microbes
Chloramines (range)	ppm	1.5-2.3	MRDL 4	MRDL 4	
Fluoride	ppm	0.2	4	4.0	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Copper (2014)	ppm	0.19	1.3	1.3 (AL)	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (2014)	ppb	0	0	15 (AL)	
Total Trihalomethanes (avg)	ppb	43	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes (LRAA)	ppb	43			
Total Trihalomethanes (range)	ppb	24 - 58			
Haloacetic Acids (avg)	ppb	42	N/A	60	By-product of drinking water disinfection
Haloacetic Acids (LRAA)	ppb	42			
Haloacetic Acids (range)	ppb	9 - 55			
Pennsylvania Distribution System					
Chloramines (avg)	ppm	2.6	MRDL 4	MRDL 4	Water additive used to control microbes
Chloramines (range)	ppm	2.2-2.9	MRDL 4	MRDL 4	
Fluoride (average)	ppm	0.60	4	4.0	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Fluoride (max reported)	ppm	1.06	4	4.0	
Copper (2016)	ppm	0.0879	1.3	1.3 (AL)	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (2016)	ppb	0.00283	0	15 (AL)	
Total Trihalomethanes (avg)	ppb	39	N/A	80	By-product of drinking water disinfection
Haloacetic Acids (avg)	ppb	53	N/A	60	
Unregulated Parameters - Maryland & Pennsylvania					
pH (range)	S.U.	7.19 - 7.64	N/A	N/A	Naturally occurring in the environment
Hardness	ppm	98	N/A	N/A	
Sodium	ppm	5.0	N/A	N/A	