

2017 ANNUAL DRINKING WATER QUALITY REPORT
PWSID #: 7010019 NAME: Gettysburg Municipal Authority

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jeff Patterson, Water Quality Supervisor at 717-337-0164. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held On the third Monday of every month at 6:00PM prevailing time at the Authority office, 601 East Middle Street Gettysburg, Pa 17325.

SOURCE(S) OF WATER:

Our water source(s) is/are: (Name-Type-Location)

Gettysburg Filtration Plant which is surface water located near Sachs bridge Cumberland Township

Wells 3,8,9,10 are located in Cumberland Township

Wells 2,6 are located in the Gettysburg Borough

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Southcentral Regional Office Regional Office, Records Management Unit at (717) 705-4708

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).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2017. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS:

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (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.

Maximum Contaminant Level Goal (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.

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.

Maximum Residual Disinfectant Level 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 contaminants.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

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.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

ppm = parts per million, or milligrams per liter (mg/L)

pCi/L = picocuries per liter (a measure of radioactivity)

ppq = parts per quadrillion, or picograms per liter

ppb = parts per billion, or micrograms per liter (µg/L)

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Distribution Chlorine Residual	4	4	0.82	0.20-2.04	ppm	1/17-12/17	N	Additive to control Microbes
Arsenic	10	0	7.40	6.1-7.4	ppb	2015	N	Erosion of natural deposits; runoff From orchards Runoff from glass and electronics Production wastes
Barium	2	2	0.021	N/A	ppm	2017	N	Discharge of Drilling waste Discharge from Metal refineries Erosion of natural deposits
Fluoride	2	2	0.12	N/A	ppm	2015	N	Erosion of natural deposits
Nitrate (as Nitrogen)	10	10	3.89	3.89	Ppm	2017	N	Runoff from Fertilizer use; Leaching from Septic tanks, Sewage; erosion Of natural deposit
TTHM (Total Trihalomethanes)	80	N/A	59.8	9.8-86.8	ppb	2017	N	By-product of Drinking water chlornation
Haloacetic Acids(HAA)	60	N/A	27.5	2.6-32.8	ppb	2017	N	By-product of Drinking water chlornation
Combined Uranium	30	0	8.15	5.86-8.15	ppb	2014	N	Erosion of natural deposits
Combined Radium	5	0	1.45	N/A	PCI/L	2014	N	Erosion of natural deposits
Gross Alpha	15	0	9.2	N/A	PCI/L	2017	N	Erosion of natural deposits

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine Entry point 101 Water Plant	0.20	0.71	0.71-2.65	ppm	2017	N	Water additive used to control microbes.
Chlorine Entry Points 102-109	0.40-0.90	0.60	0.60-2.26	ppm	2017	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	2.2	ppb	1	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.44	ppm	0	N	Corrosion of household plumbing.

2017 Test Results

Non Regulated Contaminants (Distribution)

Contaminant (Unit of measurement)	Level Detected	Range	Likely Source of Contamination
1. Chlorate (ppb) (2016)	401	375-401	Agricultural defoliant or desiccant; disinfection by product
2. Chromium (ppb) (2016)	0.48	0.20-0.48	Erosion of natural deposits
3. Hexavalent Chromium (ppb) (2016)	0.23	0.039-0.23	Naturally-occurring element; used in making steel and other alloys
4. Molybdenum, Total (ppb) (2016)	13.6	1.1-13.6	Naturally-occurring element found in ores and present in plants, animals and bacteria
5. Strontium, Total (ppb) (2016)	864	95.5-864	Naturally-occurring element
6. Vanadium, Total (ppb) (2016)	1.9	0.22-1.9	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

Non Regulated Contaminants (Entry Points)

Contaminant (Unit of measurement)	Level Detected	Range	Likely Source of Contamination
1. Chlorate (ppb) (2016)	3730	478-3730	Agricultural defoliant or desiccant; disinfection by product
2. Chromium (ppb) (2016)	0.4	0.20-0.40	Erosion of natural deposits
3. Hexavalent Chromium (ppb) (2016)	0.085	.034-.085	Naturally-occurring element; used in making steel and other alloys
4. Molybdenum, Total (ppb) (2016)	26.5	1.6-26.5	Naturally-occurring element found in ores and present in plants, animals and bacteria
5. Strontium, Total (ppb) (2016)	1100	81.6-1100	Naturally-occurring element
6. Vanadium, Total (ppb) (2016)	6.8	0.49-6.8	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
7. Chlorodifluoromethane (ppb) (2016)	0.13	N/A	Chlorofluorocarbon; occurs as a gas, and used as a refrigerant, as a low-temperature solvent, and in fluorocarbon resins, especially tetrafluoroethylene polymers

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

Microbial (related to E. coli)					
Contaminants	MCL	MCLG	Positive Sample(s)	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

Turbidity						
Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.111	3/13/17	N	Soil runoff
	TT= at least 95% of monthly samples ≤0.3 NTU		100%	1/17-12/17	N	

Total Organic Carbon (TOC)					
Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25-45%	41.0-68.9%	None	N	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

OTHER VIOLATIONS:

In June of 2017 Gettysburg Municipal Authority was required per DEP/EPA newly revised total coliform rule to collect 15 samples and have them analyzed for coliform bacteria. During that time period the third party laboratory performing the coliform test was required to void one of our samples due to their internal quality control program, thus leaving Gettysburg Municipal Authority one sample shy of 15 resulting in a monitoring violation

EDUCATIONAL INFORMATION:

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 stormwater run-off, 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 stormwater 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 stormwater runoff, and septic systems.
- 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must 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 can be obtained by calling the Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

Information about Lead

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. Gettysburg municipal Authority 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>.

OTHER INFORMATION:

About Nitrate: Nitrate in the drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.
