



2019 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 2400054 NAME: Borough of Freeland 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 Freeland Municipal Authority at 570-636-1733. 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 at 6pm every third Wednesday of the month.

SOURCE(S) OF WATER:

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

Your water is drawn from six (6) wells. Five (5) of these wells draw water from the Buck Mountain/Mauch Chunk Aquifer and include the following: Wells No. 11, No. 4, No. 6, No. 9, No. 10.

The sixth well, Well No. 17, draws water from the Green Mountain/Mauch Chunk Aquifer. A seventh well, Well No. 12, was taken out of service in February 2015. Well No. 12 has been refurbished in 2019 and has returned online June 8, 2020. Well No. 12 also draws water from the Buck Mountain/Mauch Chunk Aquifer.

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). 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 Northeast Regional Office, Records Management Unit at (570) 826-2511.

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, 2019. 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
Nitrate	10	10	3.17	0.21 – 3.17	mg/L	2/12/19	N	Erosion of Natural Deposits. Runoff from fertilizer use. Leaching from septic tanks.
HAA5	0.060	N/A	0.00606	0.00103 – 0.00303	mg/L	9/3/19	Y	By-product of drinking water disinfection
TTHM	0.080	N/A	0.0157	0.0015 – 0.0052	mg/L	9/3/19	Y	By-product of drinking water disinfection
Chlorine	4	4	1.09	0 - 4	mg/L	2019	N	Water additive used to control microbes

*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	0.40	0	0 – 2.26	mg/L	5/19/19	Y	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	0	ppb	0	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.07	ppm	0	N	Corrosion of household plumbing.

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.

Raw Source Water Microbial					
Contaminants	MCLG	Total # of Positive Samples	Dates	Violation Y/N	Sources of Contamination
<i>E. coli</i>	0	0	N/A	N	Human and animal fecal waste.

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

The following includes Public Notice of Violations indicating that we failed to comply with the monitoring requirements. Please be aware that no emergency exists. Your drinking water is safe, and you are receiving this notice within the required 1-year time frame for Tier 3 public notices per the guidelines provided by PA Department of Environmental Protection.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. On September 15, 2019, we did not monitor or test for Haloacetic Acid (Five) (HAA5) and Trihalomethanes (TTHM), and therefore cannot be sure of the quality of your drinking water during that time. Samples were taken ahead of time outside the allotted time frame of +/- 3 days of September 15, 2019. Hence, there was a violation for failure to monitor HAA5 and TTHM. The samples were taken too early on September 3, 2019 resulting in the violation. The potential health effects caused by HAA5 have been shown to affect the liver, kidneys, eyes, nervous system, and reproductive system. However, test results indicated safe levels of HAA5 in your water. Therefore, compliance was achieved, and the violation ended. The HAA5 violation ID # is 36103. The potential negative health effects of TTHM's include possibly cancer and adverse reproductive outcomes. However, the results of the tested samples indicate safe levels TTHM. Therefore, compliance was achieved, and the violation ended. The TTHM violation ID # is 36104. The results of these tests (HAA5 and TTHM) are included within this report under the contaminants information section.

Two violations were generated on 6/19/19 for failure to maintain 4-Log inactivation disinfectant treatment. A public notice has already been issued for this violation. There was a disinfectant equipment failure which lead to a boil water advisory. The fault occurred and the programming failed to call out the emergency within the allotted time frame. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. The programming has been updated and tested numerous times to assure it is working properly. Authority operators are now required to monitor disinfectants on weekends. Bacterial samples were taken within the system and indicated the water was safe to drink. The report has been submitted and compliance has been achieved for both violations. The violation ID # is 22560. The second violation resulted from a failure to issue a public notification certification form to PA DEP on time. The documents were reported and therefore compliance was achieved. This violation ID # is 22561.

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. Freeland 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>.