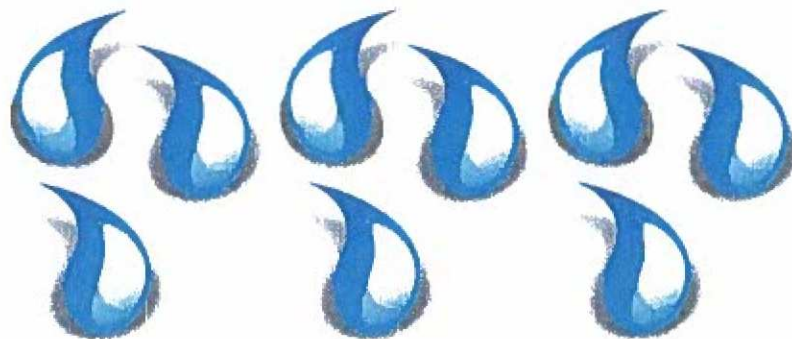


Mercersburg Water Authority

“Buck Run Water Treatment Plant”

FRANKLIN COUNTY, PENNSYLVANIA

2021 ANNUAL DRINKING WATER QUALITY REPORT



PWS #7280021



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

2021

ANNUAL DRINKING WATER QUALITY REPORT**PWSID #:** 7280021**NAME:** MERCERSBURG WATER AUTHORITY - Buck Run WTP

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 the Borough/Authority Manager at 717-328-3116 ext - 101. 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 The third Thursday of each month at Borough Hall at 7:00 PM

SOURCE(S) OF WATER:

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

Buck Run Reservoir - surface water source

Buck Run Well - groundwater (well) source

Zimm Well - (groundwater (well) source developed during 2020) - fully operational

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 (909 Elmerton Avenue, Harrisburg PA).

Regional Office, Records Management Unit at (717) 771-4481.

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, 2021. 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
TTHM	80	80	31.8	17.8 - 31.8	ppb	11/10/21	N	Disinfection by-products
HAA5	60	60	52.1	21.3 - 52.1	ppb	11/10/21	N	Disinfection by-products
Arsenic	10	-	1.2	-	ppb	11/10/21	N	Naturally occurring
Barium	2	-	0.04	-	mg/L	11/10/21	N	Naturally occurring
IOC's	-	-	45.2	0.61 - 45.2	ppb	11/10/21	N	Chemicals that dissolve into water
Radium 228	5	-	1.33	0.00 - 1.33	piCi	9/15/2018	N	Erosion of natural deposits
Chlorine (dist)	4.00	-	1.38	0.84 - 1.38	mg/L	Jan 2021	N	Disinfection and microbial control chemical.

*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	0.20	0.15	0.15 - 2.20	ppm	2/16/2021	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	7.60	ppb	0/12	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.757	ppm	0/12	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.

Turbidity						
Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.244	8/22/21	N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU		0.244	8/22/21	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	-	-	-	N	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

NO ADDITIONAL HEALTH EFFECTS LANGUAGE IS REQUIRED BASED ON ANALYTICAL RESULTS.

OTHER VIOLATIONS:

SEE ATTACHED SHEETS FOR VIOLATION DETAILS AND NOTIFICATIONS

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. Mercersburg Water 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:

Our staff works hard every day to provide the best quality of water possible to your tap. We take pride in our water quality and are continuing to work closely with PADEP to improve operations and update our water treatment and distribution system.

MERCERSBURG WATER AUTHORITY
"2021 VIOLATION REPORT"

REPORTING VIOLATIONS

	<u>PADEP ID #</u>
1) Late reporting for chlorine	17802
2) Late reporting for "revised total coliform rule"	17803 & 21935
3) Late reporting for Groundwater Rule	20426 & 03864
4) Late reporting for chlorine	03863
5) Late reporting for chlorine	14407
6) Late reporting for chlorine	20427

TREATMENT VIOLATION

	<u>PADEP ID #</u>
7) Failure to achieve minimum level for chlorine	03865

FAILURE TO MONITOR

	<u>PADEP ID #</u>
1) Total Alkalinity	20428
2) TOC	20429

GENERAL PUBLIC NOTIFICATION

	<u>PADEP ID #</u>
1) Exceedance of running annual average for TTHM	02195

The violations identified above were primarily a result of late monitoring and/or reporting. Falling Spring Environmental provided the necessary certified operations staff for licensed operations during the entirety of 2021 and submitted the required PADEP monitoring results. The Mercersburg Water Authority staff performs the daily maintenance and routine monitoring; and works diligently every day to adhere to the PADEP required operational monitoring responsibilities. Unfortunately, collection and reporting were submitted late to PADEP on a few occasions. At no point was the water unsafe for consumption.