

2018 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 6430055 **NAME: Borough of Sharpsville**

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 Ken Robertson, Sharpsville Borough at (724)-962-7896. 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 second Wednesday of every month at 7pm at the Borough Building located at 1 South Walnut Street.

SOURCE(S) OF WATER:

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

Our water source is the Shenango River. The Borough of Sharpsville purchases bulk water from Aqua Pennsylvania's Shenango Valley Division (Aqua). Water for the Shenango Valley Division comes from the Shenango River, which is fed by the 650-mile watershed located North of Sharon, Pennsylvania.

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 Northeast Regional Office, Records Management Unit at (814)332-6899.

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, 2018. 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)

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

ppb = parts per billion, or micrograms per liter ($\mu\text{g/L}$)

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

ppq = parts per quadrillion, or picograms per liter

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
Turbidity (Aqua)	TT ≤ 0	N/A	0.27	0.02-0.27	NTU	2018	N	Soil runoff
Arsenic (Aqua)	10	0	1.2	NA	ppb	2018	N	Erosion from natural deposits; Runoff from orchards; Runoff from glass and electronics production.
Barium (Aqua)	2	2	0.022	NA	ppm	2018	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (Aqua)	100	100	1.8	NA	ppb	2018	N	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (Aqua)	2	2	0.89	NA	ppm	2018	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Atrazine (Aqua)	3	3	0.60	NA	ppb	2018	N	Runoff from herbicide used on row crops.
Chlorite (Aqua)	1	1	0.78	0.091-0.78	ppm	2018	N	By-Product of drinking water chlorination.
Chlorine-Distribution System	MRDL=4	MRDLG= 4	1.8	1.6-1.8	ppm	2018	N	Water additive used to control microbes.
HAA5	60	N/A	39.777	28.4-52.75	ppb	2018	N	By-product of drinking water disinfection.
TTHM	80	N/A	54.8	33.25-89.85	ppb	2018	N	By-product of drinking water disinfection.

*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
Total Chlorine Entry Point (Aqua)	0.2	1.3	1.3-3.4	ppm	2018	N	Water additive used to control microbes.
Chlorine Dioxide* Entry Point (Aqua)	0	0.2	0-0.56	ppm	2018	N	Water additive used to control microbes.

*Chlorine Dioxide used for pre-oxidation, not disinfection.

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	2.8	ppb	0	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.18	ppm	0	N	Corrosion of household plumbing.

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. Aqua 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 and 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 <http://www.epa.gov/safewater/lead>.

Monitoring for Cryptosporidium (a naturally occurring microbial pathogen) was conducted between 2016-2018 for Aqua PA Shenango Valley Water Treatment Plant under a national program that was instituted in 2009 on raw (untreated) water samples from our source, the Shenango River, Cryptosporidium was detected in 7 of 24 raw water samples, with an average count of 0.115 per liter. These levels are in the second lowest (Bin 2) category of risk raw (untreated) water. Our water treatment processes are designed to remove Cryptosporidium. However, since this program has detected elevated levels of this organism in our raw water, we will be instituting higher standards in 2019 to ensure the treatment process is optimized for the removal of Cryptosporidium. Complete removal of all organisms at all times cannot be guaranteed. For this reason, immune-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor precautions to avoid infection.

Microbiological Contaminants								
Contaminant	Level Detected	Range	Action Level (AL)	Units	MCL	Violation Y/N	Sample Date	Sources of Contamination
Microcystins	0.477	ND-0.477	0.3/1.6	ppb	N/A	N	2018	Produced by some naturally occurring cyanobacteria, also known as blue green algae, which under certain conditions (i.e., high nutrient concentrations and light intensity) may produce microcystins.

A single Microcystin sample result, received on 2/26/2018, was above the Action Level. A resample was collected on 03/1/2018 and microcystins were not detected. According to regulatory guidelines, if a water system detects Microcystin above the Action Level, a repeat sample is required within 24 hours of receiving the results. Guideline also recommended the public water system issue a public notification, including health effect language and use restrictions, if the Action Level is exceeded in the repeat sample; which did not occur. Consuming water containing concentrations of Microcystin over the Action Level may result in abnormal liver function, diarrhea, vomiting, nausea, numbness or dizziness. Children younger than school-age, pregnant women, nursing mothers, the elderly, immune-compromised individual, those with pre-existing liver conditions and those receiving dialysis treatment may be more susceptible than the general population to the health effects of Microcystin.

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			N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU				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	35-45	25.0-44.4	0	N	Naturally present in

(Aqua)					the environment
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DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

No violations took place. As such, no health effects are noted.

OTHER VIOLATIONS:

The Borough of Sharpshville had no other violations.

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

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OTHER INFORMATION:

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The 1996 amendments to the Safe Water Drinking 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 data serves as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. If a PWS monitoring for UCMR finds contaminants in drinking water, it must provide the information to its customers in this annual water quality report. Below is a table of the results of Aqua PA's UCMR monitoring in 2018. All other contaminants tested during UCMR were not detected.

<i>Unregulated Contaminants Detected During 2018</i>			
<i>Unregulated Contaminant</i>	<i>Average Detection</i>	<i>Range of Detections</i>	<i>MCL</i>
<i>Raw Samples (untreated)</i>			
Bromide, ppb	13.9	ND – 27.8	N/A
Total Organic Carbon, ppb	5555	3800-7310	N/A
<i>Entry Point Samples</i>			
Manganese, ppb	1.27	0.7-1.83	N/A
<i>Distribution Samples</i>			
Bromochloroacetic Acid, ppb	2.45	2.21-3.29	N/A
Bromodichloroacetic Acid, ppb	4.80	4.64-5.03	N/A
Dichloroacetic Acid, ppb	31.08	25.4-41.0	N/A
Trichloroacetic Acid, ppb	61.2	58.3-63.6	N/A

Note: At this time, results for all the samples taken for the UCMR in 2018 are not yet available. This table has only been updated with the results we have received thus far. Aqua PA and Sharpsville Borough will update this data as it becomes available.