



MILLERSBURG AREA AUTHORITY

PWSID # 7220034

2017 Annual Drinking Water Quality Report

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 AUTHORITY

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 Nick McCarron at (717) 692-4711. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled monthly meetings. They are held on the first Monday of every month, unless advertised otherwise, at the Municipal Building, 101 West Street in Millersburg. You may review this report and other information regarding the Authority at www.millersburgwater.com. Our water sources are nine drilled wells, seven mountain springs and one creek intake, all of which are located at the base of Berry Mountain in Upper Paxton Township.

CONTAMINATION POTENTIAL

A Source Water Assessment of our sources was completed by the PA Department of Environmental Protection (PADEP). The Assessment found that our sources are potentially susceptible to agricultural and industrial contamination. Overall, our sources have little risk of contamination. A summary report of the Assessment is available on the Source Water Assessment and Protection web page at: <http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>. 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 PADEP South Central Regional Office, Records Management Unit at (717) 705-4708.

VULNERABILITY

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 at (800) 426-4791.

VIOLATIONS

During 2017, the Authority had a reporting violation. We are required to report our drinking water test results to DEP within the first 10 days of the end of the monitoring period. Our contracted lab did not report our monitoring results for 'Synthetic Organic Compounds' in the third quarter until after October 10th.

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. The Millersburg Area 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 Water Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

EDUCATIONAL INFORMATION

All 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, 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 run-off, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off, 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* at (800) 426-4791.

MONITORING

The Millersburg Area Authority routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows 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 Water Drinking 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.

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

Nephelometric Turbidity Unit (NTU) – A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

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



DETECTED SAMPLE RESULTS:

Chemical Contaminants

Contaminant	MCL	MCLG	Highest Level Detected	Range of Detection	Unit	Sample Date	Violation Y/N	Typical Source of Contamination
Barium	2	2	0.054	0.054	ppm	3/21/2017	N	Discharge of drilling waste; erosion of natural deposits
Fluoride	2	2	0.72	0.72	ppm	3/21/2017	N	Added to your water to provide healthy teeth
Nitrate	10	10	2.1	0.78 – 2.1	ppm	4/11/2017	N	Runoff from fertilizer use; erosion of natural deposits
Total Trihalomethanes	80	80	26.6	20.3 – 26.6	ppb	7/11/2017	N	Byproduct of disinfection addition
Haloacetic Acids	60	60	4.3	1.2 – 4.3	ppb	7/11/2017	N	Byproduct of disinfection addition
Radium 228	5	5	1.41	1.41	pCi/L	4/24/2014	N	Erosion of natural deposits
Gross Alpha	15	15	5.65	5.65	pCi/L	4/24/2014	N	Erosion of natural deposits

Entry Point Disinfectant Residual

Contaminant	MinRDL	Lowest level detected	Range of Detection	Unit	Sample Date	Violation Y/N	Typical Source of Contamination
Entry Point 101 Chlorine	0.40	0.47	0.47 – 1.37	ppm	7/24/2017	N	Water additive used to control microbes
Entry Point 104 Chlorine	0.50	0.60	0.60 – 1.65	ppm	1/14/2017	N	Water additive used to control microbes

2016 Lead and Copper

Contaminant	MCL	MCLG	90th Percentile Value	Unit	# of sites above AL to total sites	Violation Y/N	Typical Source of Contamination
Lead	15	0	0	ppb	0	N	Corrosion of household plumbing
Copper	1.3	1.3	0.798	ppm	0	N	Corrosion of household plumbing

Microbial

Contaminant	MCL	MCLG	Highest # or % of Positive Samples	Violation Y/N	Typical Source of Contamination
Total Coliform Bacteria	More than 1 positive monthly sample	0	0	N	Naturally present in the environment
Fecal Coliform Bacteria or <i>E. coli</i>	0	0	0	N	Human and animal fecal waste

Turbidity

Contaminant	MCL	MCLG	Level detected	Sample Date	Violation Y/N	Typical Source of Contamination
Turbidity	TT = 1 NTU for a single measurement	0	0.24	9/2/2017	N	Soil runoff
	TT = at least 95% of monthly samples ≤0.3 NTU		0.063	September 2017	N	

Total Organic Carbon (TOC)

Contaminant	Range of % removal required	Range of % removal achieved	Number of quarters out of compliance	Violation Y/N	Typical Source of Contamination
TOC	0	0	0	N	Naturally present in the environment