



2019 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 4550016

NAME: Middleburg 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 Middleburg Borough Office at 570-837-2533. 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 second Tuesday of each month at 6:00 PM in the Middleburg Borough Building, 13 North Main Street, Middleburg, PA 17842-1007.

SOURCE(S) OF WATER:

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

Our water source is surface water coming from Bowersox Run and Erb Run, both located on Shade Mountain, Franklin Township, Snyder County. There is also three ground water supplemental sources. Wells #1 and #2 are located at the water treatment plant on Coonhunter Road in Franklin Township, Snyder County. Well #3 is located on Willow Avenue in Middleburg Borough, Snyder County.

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 Regional Office, Records Management Unit at (570) 327-3636.

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 ($\mu\text{g/L}$)

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
Total Trihalomethanes	80	N/A	62.4	.53-62.4	ppb	2019	N	By-product of drinking water chlorination.
Haloacetic Acids HAA	60	N/A	16.3	.50-16.3	ppb	2019	N	By-product of drinking water disinfection.
Nitrate	10	10	0	N/A	ppm	2019	N	Naturally present in the environment.
Nitrite	1	1	0	N/A	ppm N			Naturally present in the environment.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	0.5	0.5-1.4	ppm	06/30/19	N	Water additive used to control microbes.

Distribution Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	0.2	0.2-1.2	ppm	2019	N	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	.0018	ppb	0 out of 10	N	Corrosion of household plumbing.
Copper	1.3	1.3	.0000839	ppm	0 out of 10	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.
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Microbial (related to <i>E. coli</i>)					
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	.30 NTU	05/01/19	N	Soil runoff
	TT= at least 95% of monthly samples ≤ 0.3 NTU		99%	05/01/19	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	ACC	ACC	0	N	Naturally present in the environment

***ACC – Alternative Compliance Criteria**

Violations:

A failure to monitor TOC and alkalinity on the same day occurred in October 2019 due to a laboratory error. Make-up TOC samples were collected and routine monitoring resumed in the next sample period to return to compliance with DEP regulations. No health hazards are associated with failure to monitor 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. Middleburg 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:

CONSERVATION OF WATER:

Water is an important natural resource. It is used every day at home and at work in so many ways that many take it for granted. Be aware of personal water use, as awareness is the first step in conservation. Water saving plumbing fixtures and appliances are cost effective, providing permanent long-term economic advantages. Low-flow toilets, shower heads and faucet aerators save valuable water and energy used to heat water without requiring a change in personal use habits.

A dripping faucet is more than annoying and its expensive. Even small leaks can waste significant amounts of water. Hot water leaks are not only a waste of water, but also of the energy needed to heat the lost water.

Leaks inside a toilet can waste up to 200 gallons of water a day. Toilet leaks can be detected by adding a few drops of food coloring to water in the toilet tank. If the colored water appears in the bowl, the tank is leaking. Repair leaking faucets and toilets in a timely manner. Never use your toilet as a trash can!

Tips to save water inside the home:

- 1) Turn the faucet off while brushing your teeth. Use a glass of water for rinsing teeth.
- 2) When shaving, fill the sink with rinse water and do not let the faucet flow.
- 3) Take short showers instead of baths and consider bathing small children together.
- 4) If the shower has a single hand control or shut off valve, turn off the flow while soaping or shampooing.
- 5) Refrigerate a bottle of drinking water instead of letting a faucet flow until the water is cold enough to drink.
- 6) Turn the faucet off while cleaning vegetables. Rinse them in the sink with the drain closed or in a pan.
- 7) When washing dishes by hand, do not leave the faucet flowing for rinsing. Instead, use a dish rack and spray device to rinse them. If there are two sinks, fill one with soapy water and one with rinse water.
- 8) Fill the sink with water to pre-rinse dishes before putting them in the dishwasher.

Tips to save water outside the home:

- 1) Use a broom, not a hose, to clean driveways, steps and sidewalks.
- 2) Wash the car with water from a bucket. If a hose is used, control the flow with an automatic shut off nozzle.
- 3) Water the lawn only when needed. If grass does not spring back after walking on it, it probably needs water.
- 4) Water the lawn or garden during the coolest part of the day. Do not water on windy days.
- 5) Set sprinklers to water the lawn or garden only. Do not water the street or sidewalk.
- 6) Use soaker hoses and trickle irrigation systems to reduce the amount of water used by 20% to 50%.
- 7) Mulch around shrubs and garden plants to reduce evaporation from the soil and inhibit weeds.
- 8) When landscaping, use native plants that require less care and water than ornamental varieties.
- 9) Cover the swimming pool to prevent evaporation.
- 10) Adjust the lawn mower to a higher setting to provide natural ground shade and to promote water retention by the soil.

Please feel free to contact the Borough office at 570-837-2533 if you have questions.

Middleburg Borough employees who operate and maintain the water treatment system, owned by the Middleburg Municipal Authority, work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. Please help to conserve our water.