

Annual Drinking Water Quality Report 2017

Report Date: May 11, 2018

MD0100018

TOWN OF MIDDLETOWN

Annual Water Quality Report for the period of January 1 to December 31, 2017

For more information regarding this report contact:

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

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TOWN OF MIDDLETOWN is Ground Water

The Burgess and Commissioners of Middletown are pleased to present to you this annual Water Quality Report. This report is designed to inform you about the quality of our water and services we deliver to you. Our constant goal is to provide you with a safe and dependable supply of drinking water, to continually improve our water treatment process, and to protect our water resources.

The Middletown water system is supplied by twenty-three (23) wells and four (4) major groups of springs located on the west side of the Catoctin Mountain, north of town. The Middletown water system draws from the Catoctin Mountain Aquifer. Water from the springs flow by gravity to two (2) in-ground reservoirs with a combined capacity of two million gallons. Raw water from the reservoir flows directly to our water treatment plant. The reservoirs and the treatment plant are located just west of Hollow Road about one mile north of the intersection with US Alternate 40. Water treatment consists of adding caustic soda, for pH adjustment, chlorine, as a disinfectant to protect against microbial contaminants. From the plant, the water is pumped to our 400,000 gallon elevated storage tank.

We are pleased to report that Middletown's drinking water is safe and continues to meet all Federal and State requirements. The Maryland Department of the Environment performed a source water assessment for the Town of Middletown in 2005. Copy of this assessment is available upon request. If you have any questions about this report or concerning water quality, please contact Andrew J. Bowen, Town Administrator, at 31 West Main Street, Middletown, MD 21769 or call 301.371.6171. To learn more about the Town's water and sewer system activities, you are encouraged to attend our monthly Town Meetings at 7:00 PM on the second and fourth Monday's of each month at the Middletown Municipal Center, located at 31 West Main Street, Middletown, MD.

The Middletown water system routinely monitors your drinking water for possible contaminants in accordance with Federal and State laws. Of the 122 regulated and unregulated contaminants for which the Environmental Protection Agency (EPA) has identified a Maximum Contaminant Level (MCL), none were at violation levels. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these does not necessarily pose a health risk. More information about contaminants and potential health risks can be obtained by calling the EPA Safe Drinking Water Hotline at 800.426.4791.

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).

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. We 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>.

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 storm water runoff, 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

The table below lists all contaminants found in Middletown’s drinking water during the 2017 calendar year. Unless otherwise noted, testing was performed January 1 – December 31, 2017. The State requires us to monitor some contaminants less than once per year because their concentrations are not likely to vary significantly from year to year. Therefore, some of the data, though representative of the water quality, is more than one year old.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detecte d	Unit Measuremen t	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Beta/photon emitters	N	6.5	pCi/L	n/a	50	Decay of natural and man-made deposits
Inorganic Contaminants						
Copper (distribution) (90 th percentile) (2014)	NO	0.4	ppm	1.3	AL=1.3	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (distribution) (90 th percentile) (2014)	NO	2	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits; Erosion of natural deposits
Barium	NO	0.0822	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen)	NO	1.6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride -Range ND-1.14	NO	0.11 Avg.	ppm	4	4	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum
Volatile Organic Contaminants						
Total Trihalomethanes TTHM	NO	22.07	ppb	0	80	By-product of drinking water disinfection
Haloacetic Acids HAA5	NO	5.6	ppb	0	60	By-product of drinking water disinfection
Chlorine	NO	1.3	ppm	MRDLG= 4	MRDL= 4	Water additive used to control microbes.

Violation – April 2017 – staff failed to obtain 5 coliform samples as required each month. We now obtain 2 samples the first week of each month to compensate for our 5 monthly required coliform samples.

To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) - Milligrams per liter or parts per million or one ounce in 7,350 gallons of water.

Parts per billion (ppb) - Micrograms per liter or parts billion or one ounce in 7,350,000 gallons of water.

Maximum residual disinfectant level goal or 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.

Maximum residual disinfectant level or 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 Contaminant Level or 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 or 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.

Average (Avg) - Regulatory compliance with some MCLs are based on running annual average of monthly samples.