



Town of Middletown

Annual Drinking Water Quality Report 2014

Report Date: May 1, 2015

PWSID: 0100018 Town of Middletown

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 and fluoride to promote dental health. 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. 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 Meeting 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 some 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The table on the opposite side of this page lists all contaminants found in Middletown's drinking water during the 2014 calendar year. Unless otherwise noted, testing was performed January 1 – December 31, 2014. 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. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level - the concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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 - The "Goal"(MCLG) is 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.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity (2014)	N	.1	Ntu	n/a	TT	Soil runoff
Inorganic Contaminants						
Copper (distribution) (90 th percentile) (2014)	NO	0.4	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits
Lead (distribution) (90 th percentile) (2014)	NO	0.002	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Arsenic (2014) ID#2	NO	0.0008	ppb	n/a	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (2012) ID#1 ID#2	NO	.058 0.69	ppm	2	2	Discharge of drilling waters; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen)(2014) ID#1 ID#2 ID#3	NO NO NO	1.3 0.9 0.2	ppm	10	10	Runoff from fertilizer use; leaching form septic tanks, sewage; erosion of natural deposits
Fluoride –Range ND-1.14	NO	0.22 Avg.	ppm	4	4	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum
Manganese ID#2	NO	0.039	ppb	n/a	50	Erosion of natural deposits
Nickel ID#1 ID#2	NO NO	0.0023 0.0031	ppb	100	12	Erosion of natural deposits; discharge from metal factories
Volatile Organic Contaminants						
Stage 2 Disinfection Byproducts: October 1 – December 31, 2014						
TTHM (2014) (Distribution) (range and average) (Total trihalomethanes)	N	12 – 18.3 15.25	ppb	0	80	By-product of drinking water chlorination
HAA5 (Distribution) (2014) (range and Average) (Haloacetic Acids)	N	5.1 –7.8 6.45	ppb	0	60	By-product of drinking water chlorination
Xylenes ID#1,2 & 3	NO	< 0.5	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
Trichloroethylene (2014)	N	2.3	ppb	0	5	Discharge from metal degreasing sites and other factories
Ethylbenzene ID#1	NO	< 0.5	ppb	700	700	Discharge from petroleum refineries
Radioactive Contaminants						
Beta/photon emitters (2011) ID#1 ID#2 ID#3	NO NO NO	<4 8.5 6.0	pCi/L	0	50	Decay of natural and man-made deposits
Alpha emitters (2011) ID#1 ID#2 ID#3	NO NO NO	< 2 < 2.0 < 2.0	pCi/L	0	15	Erosion of natural deposits
Radium (2011) ID#3	NO	1.1	pCi/L	0	5	Erosion of natural deposits.
Unregulated						
Bromodichloromethane (2014) ID#1 ID#2 ID#3	NO NO NO	0.5 1 2.2	ppb	N/A	N/A	Byproducts of chlorine disinfection
Chloroform (2014) ID#1 ID#2 ID#3	NO NO NO	0.5 <0.5 1.3	ppb	N/A	N/A	Byproducts of chlorine disinfection
Dibromochloromethane (2014) ID#1 ID#2 ID#3	NO NO NO	0.6 1.3 2.2	ppb	N/A	N/A	Byproducts of chlorine disinfection

Sodium (2012)	ID#1 ID#2 ID#3	NO NO NO	20.1 4.5 16	ppm	N/A	N/A	Erosion of natural deposits
Chloromethane	ID#1 ID#2 ID#3	NO NO	0.5 <0.5 0.5	ppb	N/A	N/A	Airborne, burning/rotting wood, grass, charcoal
Bromoform	ID#1 ID#3	NO NO	< 0.5 <0.5	ppb	N/A	N/A	
Sulfate (2014)	ID#2	N	23	ppm	N/A	N/A	Sulfate is a salt
Alkalinity (2014)	ID#2	N	130	ppm	N/A	N/A	Used as an indicator parameter for lead and copper issues
Hardness (2014)	ID#2	N	220	ppm	N/A	N/A	Hardness is the amount of dissolved calcium and magnesium in water

ID #1 – 10 Wells and 6 spring/ID #2 – Wells #15&16/ID #3 – Wells 22 & 23

Note: Test results are for 2014 unless otherwise stated. All tests do not require annual testing.

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 Town of Middletown 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

The employees of the Middletown water system work constantly 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 call our office if you have questions.