Annual Drinking Water Quality Report

TOWN OF MIDDLETOWN

Public Water System ID: MD0100018

We are pleased to present to you the Annual Water Quality Report (Consumer Confidence Report) for the year, for the period of January 1 to December 31, 2024. 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. (Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien).

For more information regarding this report, contact:

Name: Bruce A. Carbaugh

Phone: 301-371-6171

TOWN OF MIDDLETOWN is a Ground Water system.

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. Raw water sources flow to a 1 million gallon concrete storage reservoir and then directly to our water treatment plant (WTP01). The reservoir 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. Two other sources of raw water are treated by independent water treatment plants and flow directly into the distribution system. Those wells are 15 (WTP 02) and 22 and 23 (WTP 03 – Brookridge). Both facilities remove iron and manganese and disinfect the water for public consumption.
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 and the link is provided below and on the Town Website. If you have any questions about this report or concerning water quality, please contact Bruce A. Carbaugh, 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 120 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.

Sources of Drinking Water

TOWN OF MIDDLETOWN is Ground water.

Our water source(s) and source water assessment information are listed below:

Source Name		Type of Water	Report Status	Location
BROOKRIDGE WELL 22 (B) FR880471	FR880471	Ground water		
BROOKRIDGE WELL 23 (A) FR943217	FR943217	Ground water		
COXEY BROWN SPRINGS	01-WTP 1 (10 WELLS & 6 SPRINGS)	Ground water		
MIDDLETOWN 1 FR738007	FR738007	Ground water		
MIDDLETOWN 10 FR048794	FR048794	Ground water		
MIDDLETOWN 11 FR731943	FR731943	Ground water		
MIDDLETOWN 12 FR731706	FR731706	Ground water		
MIDDLETOWN 13 FR941466	FR941466	Ground water		
MIDDLETOWN 14 FR941467	FR941467	Ground water		
MIDDLETOWN 15 FR941544	FR941544	Ground water		
MIDDLETOWN 16 (CONE BRANCH) FR943317	FR943317	Ground water		
MIDDLETOWN 17 FR944362	FR944362	Ground water		
MIDDLETOWN 2 FR738006	FR738006	Ground water		
MIDDLETOWN 3 FR736400	FR736400	Ground water		
MIDDLETOWN 4 FR736399	FR736399	Ground water		
MIDDLETOWN 5 FR736398	FR736398	Ground water		
MIDDLETOWN 6 FR736397	FR736397	Ground water		
MIDDLETOWN 7 FR650491	FR650491	Ground water		
MIDDLETOWN 8 NOPERMIT		Ground water		
MIDDLETOWN 9 FR731944	FR731944	Ground water		
MIDDLETOWN WELL 19 FR944331	FR944331	Ground water		
ORIGINAL SPRINGS	01-WTP 1 (10 WELLS & 6 SPRINGS)	Ground water		

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 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.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791. 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 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 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 prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

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).

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 and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Town of Middletown at 301-371-6171. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

An initial Service Line Inventory was submitted to the Maryland Department of the Environment on October 8, 2024. As a result, the Service Line Inventory requirement was fulfilled. The report is available on the town website at this address https://www.middletown.md.us/vertical/sites/%7B4C3AC731-6F4C-4536-A861-95ECA1B7B30F%7D/uploads/LCRR_public_notice.pdf.

Source water assessment has been performed by the Maryland Department of the Environment and is accessible on their website at:
https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx

In the tables below, 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:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
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.
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.
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.
Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Avg: Average - Regulatory compliance with some MCLs are based on running annual average of monthly samples.
LRAA: Locational Running Annual Average
mrem: millirems per year (a measure of radiation absorbed by the body)
ppt: One part per trillion is equivalent to one nanogram (ng/L) per liter. A single drop of food coloring in 18 million gallons of water.
ppb: micrograms per liter (ug/L) or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm: milligrams per liter (mg/L) or parts per million - or one ounce in 7,350 gallons of water
picocuries per liter (pCi/L): picocuries per liter is a measure of the radioactivity in water.
na: not applicable.

Our water system tested a minimum of 5 sample(s) per month in accordance with the Total Coliform Rule for microbiological contaminants. With the microbiological samples collected, the water system collects disinfectant residuals to ensure control of microbial growth.

Disinfectant	Date	Highest RAA	Unit	Range	MRDL	MRDLG	Typical Source
CHLORINE	2024	1.5	ppm	-	4	4	Water additive used to control microbes

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	SITE 2	2023 - 2024	2	2.49 - 2.49	ppb	60	0	By-product of drinking water disinfection
TTHM	SITE 2	2023 - 2024	11	10.86 - 10.86	ppb	80	0	By-product of drinking water chlorination

Radiological Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	2/23/2021	2.2	2.2	pCi/L	5	0	Erosion of natural deposits
GROSS BETA PARTICLE ACTIVITY	8/4/2024	4.9	4.2 - 4.9	pCi/L	50	0	Decay of natural and man-made deposits.
RADIUM-226	2/23/2021	2.2	2.2	PCI/L	5	0	Erosion of natural deposits
RADIUM-228	8/4/2024	0.8	0.3 - 0.8	PCI/L	5	0	Erosion of natural deposits

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
BARIUM	10/20/2024	0.062	0.029 - 0.062	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
NITRATE	9/4/2024	2.27	0 - 2.27	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	10/20/2024	1	0 - 1	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Unregulated Contaminant Monitoring Rule (UCMR) June 2025 scheduled sampling (results will be included in the 2025 CCR and posted on the Town Website.)	Collection Date of HV	Highest Value (HV)	Range of Sampled Result(s)	Unit

Lead & Copper	Date Sampled	Units	Action Level (AL)	90th Percentile	Range of levels detected	# Sites Over AL	Possible Sources
Copper	2023	ppm	1.3	0.39	0.0338 – 0.65	0	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2023	ppm	15	<5	<1 - 5	0	Erosion of household plumbing systems; Erosion of natural deposits

WHAT IS PFAS?

PFAS - short for per- and polyfluoroalkyl substances - refers to a large group of more than 4,000 human- made chemicals that have been used since the 1940s in a range of products, including stain- and water- resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

The Maryland Department of the Environment (MDE) conducted a PFAS monitoring program for Community Water Systems from 2020 to 2022. The results are available on MDE's website: https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx.

The Town of Middletown also has PFAS information and testing results on the website:
https://www.middletown.md.us/vertical/sites/%7B4C3AC731-6F4C-4536-A861-95ECA1B7B30F%7D/uploads/PFAS_Website_Notice_2024.pdf
https://www.middletown.md.us/vertical/sites/%7B4C3AC731-6F4C-4536-A861-95ECA1B7B30F%7D/uploads/PFAS_Town_Well_and_Spring_Info_Public.pdf

The Environmental Protection Agency (EPA) finalized regulations for 6 PFAS compounds in drinking water in April 2024. The MCLs for PFOA and PFOS are each 4.0 parts per trillion (ppt). The MCLs for PFNA, PFHxS, and HFPO-DA (GenX chemicals) are each 10 ppt. Additionally, a mixture of two or more of the following chemicals (PFNA, PFHxS, HFPO-DA, and PFBS) will be regulated with a Hazard Index of 1 (unitless) to determine if the combined levels of these PFAS pose a risk and require action.

Additional Required Health Effects Language:

There are no additional required health effects violation notices.