Aberdeen Proving Ground North
Aberdeen Area

2025 Annual Drinking Water Quality Report

PWSID No. MD0120002 TP(03)

July 1st, 2026

Dear Customer,

The City of Aberdeen Department of Public Works is required to provide this Annual Drinking Water Quality Report, covering monitoring results from January 1 through December 31, 2025 (unless otherwise noted). This report is designed to inform you about the quality of your drinking water and the services we provide. We are committed to delivering water that meets or exceeds all federal and state standards.

The City routinely monitors drinking water in accordance with regulations established by the U.S. Environmental Protection Agency (EPA) and state authorities. We are pleased to report that your water meets all applicable requirements.
The Aberdeen Proving Ground North (APGN), Aberdeen Area, water supply is sourced from production wells at Plumb Point within the Potomac Group aquifer. The Building 250 Water Treatment Plant processes an average of 849,083 gallons per day.

To report water quality concerns, leaks, or service interruptions, contact your APGN representative. For questions about this report or your water service, call (410) 272-2650, Monday–Friday, 7:00 a.m. to 3:00 p.m. Additional information is available at **www.aberdeenmd.gov**.

What does all this information mean?

The EPA requires that the City provide the following pages of technical data of potential water contaminants and annual test results. While the data tables may appear complex, it demonstrates that your water meets or exceeds all federal and state regulation standards.

B-250 treats your water to remove pollutants and is disinfected to protect you against contamination by constituents that are naturally occurring or man-made. Those constituents can be microbes, organic, inorganic chemicals, or radioactive materials. All drinking water, including bottled drinking water, may reasonably be expected to contain small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants, potential health effects, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater.

Our water production and distribution system had NO VIOLATIONS, and analysis shows very few detectable contaminants. We are proud that your drinking water meets or exceeds all federal and state requirements. Through our monitoring and testing protocols, our staff identified that some of the finished water contains low levels of constituents as it leaves the water treatment plant and enters the distribution system. The levels of constituents measured in the water are below the acceptable limits and DO NOT POSE a health risk. The water is SAFE to drink at these levels according to EPA standards.

Definitions

Compliance Level (CL): The value used to determine compliance with EPA and State drinking water regulations

Maximum Contaminant Level (MCL): The highest level of a contaminant allowed in drinking water.

Maximum Contaminant Level Goal (MCLG): The health-based goal below which no known or expected health risk exists.

Non-Detect (ND): The contaminant was not detected by laboratory analysis.

Parts per Million (ppm) / Milligrams per Liter (mg/L): A unit measuring very small concentrations in water.

Parts per Billion (ppb) / Micrograms per Liter (µg/L): A unit measuring extremely small concentrations in water.

Parts per Trillion (ppt) / Nanograms per Liter (ng/L): A unit measuring trace concentrations in water.

Picocuries per Liter (pCi/L): A measure of radioactivity in water.

Nephelometric Turbidity Unit (NTU): A measure of water clarity (turbidity).

Action Level (AL): A concentration that, if exceeded, requires treatment or other corrective actions.

Treatment Technique (TT): A required process used to reduce a contaminant in drinking water.

Detected Contaminants – APGN B-250 Water Supply

In addition to the many constituents that were subject to testing but not found, the City found regulated constituents present in the water system at levels ***below*** *the MCL* which is determined safe by the EPA. These constituents are shown below, along with the MCL and MCLG, for each one detected. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Data in these instances are indicated by date in **bold**.

Regulated Contaminants	Violation Y/N	Level Detected			Unit of Measure	MCL	MCLG	Likely Source of Contamination
		Low	High	Avg.				
Total Coliform (% of positive tests)	N	0%	0%	0%		Presence of coliform bacteria in <5% of monthly samples	0	Naturally present in the environment. All test results negative of **192** samples tested.
* Turbidity	N	0.035	0.149	0.066	NTU	TT	N/A	Soil runoff.
Fluoride	N	0.29	1.05	0.71	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
† Nitrates (as Nitrogen)	N	ND	ND	ND	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
†† TTHM (Total trihalomethanes)	N	1.4	13.8	■ 12.78	ppb	80		Byproduct of drinking water chlorination. ■ Highest locational running annual average by quarter.
HAA5 (Haloacetic Acids)	N	ND	6.28	■ 5.25	ppb	60		Byproduct of drinking water chlorination. ■ Highest locational running annual average by quarter.
Chlorine (as Cl_2)	N	1.44	1.74	1.58	ppm	4	4	Water additive to control microbes.
Combined Radium 226/228	N		0.728		pCi/L	5	0	Erosion of natural deposits.

Lead & Copper	Date Sampled	Unit of Measure	Action Level (AL)	90th Percentile	Ranges of Levels Detected	# sites over AL	Likely Source of Contamination
** Lead	2023	ppb	15	< 1	All < 1	0	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2023	ppm	1.3	0.175	< 0.010 – 0.216	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

*Turbidity: Turbidity is the measure of the cloudiness of water. Monitor if it is a good indicator of the effectiveness of our filtration system. 100% of samples taken were below MCL.

**Lead: 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 City's water treatment plant 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. An initial inventory of service line pipes materials located within our service area was required to be submitted to the Maryland Department of the Environment (MDE) by October 16, 2024. Our initial inventory was submitted October 14, 2024 and is available upon request. If you are concerned about lead in your water and wish to have your water tested, contact the City at (410) 272 – 2650. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/safewater/lead.

†Nitrates: As a precaution the City notifies physicians and health care providers in this area if there is ever a higher-than-normal level of nitrates in the water supply. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

††TTHM: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have increased risk of getting cancer.

Unregulated Contaminants	Violation Y/N	Level Detected	Unit of Measure	Standard	Likely Source of Contamination
Sodium	N	36.5	ppm	30 – 60 ppm (Advisory Level)	Naturally occurring.

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 Environmental Protection Agency (EPA) announced regulations for 6 PFAS compounds in drinking water in April 2024. The MCLs for PFOA and PFOS are 4.0 parts per trillion (ppt). The MCLs for HFPO-DA (GenX), PFNA and PFHxS are 10 ppt. PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS use a Hazard Index of 1.0 (unitless) to determine if the combined and co-occurring levels of these PFAS pose a risk and require action. Public water systems have three years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.

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 at:

https://marylanddepartmentoftheenvironment.shinyapps.io/MDE_PFAS_PublicWaterSystemStudyMap/

PFAS Initial Monitoring Requirements	Collection Date of Highest Value	Highest Value	Range of Sampled Result(s)	Unit
Perfluorobutane Sulfonic Acid (**PFBS**)		ND		ppt
Perfluorohexane Sulfonic Acid (**PFHxS**)		ND		ppt
Perfluoroctane Sulfonic Acid (**PFOS**)		ND		ppt
Perfluoroctanoic Acid (**PFOA**)		ND		ppt
Perfluorononanoic Acid (**PFNA**)		ND		ppt
Hexafluoropropylene Oxide Dimer Acid (**HFPO-DA**)		ND		ppt

Detected Contaminants – Harford County Water Supply

Harford County monitors and reports their water quality under the same EPA and MDE regulations. The water the City purchases from Harford County found some constituents present in the water system at levels ***below*** *the MCL* which is determined safe by the EPA with no further treatment required. These constituents are shown below, along with the MCL and MCLG for each one detected.

The state requires us to monitor for certain contaminants less than once per year because the concentration of these contaminants do not change frequently. Data in these instances are indicated by date in **bold**.

Additional information about the County water system and water quality can be accessed on the web at www.harfordcountymd.gov/782/Water-Sewer.

Regulated Contaminants	Violation Y/N	Level Detected			Unit of Measure	MCL	MCLG	Likely Source of Contamination
		Low	High	CL				
Disinfectants and Disinfection By-Products								
Chlorine (as Cl_2)	N	0.3	2.4	2.4	ppm	4	4	Water additive to control microbes. Avg. = **1.63**
Inorganic Contaminants								
Barium	N	0.03	0.12	0.12	ppm	2	2	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.
Fluoride	N	ND	0.66	0.66	ppm	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories. **Avg = 0.47 ppm.**
† Nitrates (as Nitrogen)	N	1.42	3.87	3.87	ppm	10	10	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits.
Microbiological Contaminants								
Total Coliform (% of positive tests)	N	0%	0.8%	0.8%		Presence of coliform bacteria in <5% of monthly samples	0%	Coliforms are naturally present in the environment. **One** positive out of **1444** samples tested.
Turbidity ≤ 0.3 in 95% of samples in a month. Never >1.0.	N	0.017	0.097	100%	NTU	TT	N/A	From soil runoff. Average = **0.033 NTU**
Organic Contaminants								
Total Organic Carbon (TOC)	N	0.88	1.34	Multiple compliance criteria	ppm	TT	N/A	Organic matter. It can provide a medium for formation of disinfection by-products.

Unregulated Contaminants	Level Detected			Unit of Measure	Likely Source of Contamination
	Low	High	Avg.		
Manganese	0.022	0.024	0.023	ppm	Erosion of natural deposits.
Nickel	ND	0.9	0.2	ppm	Corrosion of pipes and fittings; erosion of natural deposits.
PFHxA	ND	0.9	0.2	ppt	Firefighting foams, industrial waste sites, and insecticides.
Sodium	30.5	83.5	50.3	ppm	Erosion of natural deposits. Sodium salts used in water treatment.

Detected Contaminants – Harford County Water Supply (Cont'd)

Raw Water Contaminants	Level Detected				TYPICAL SOURCES
	Low	High	MCL	MCLG	
Cryptosporidium (oocyst/liter)	ND	ND	TT	0	Human and animal fecal waste.
Giardia (cyst/liter)	ND	ND	TT	0	Human and animal fecal waste.

Health Information

The detection of these substances in the drinking water does not constitute a known threat to public health because they were found at levels *less than* the MCL and *below* the level that EPA currently constitutes as a health threat. The MCLs are set at very stringent levels, and the B-250 water has proven to be below those levels for the constituents listed above.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people 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.

Thank you for allowing us to continue providing your family or workplace with clean, quality water this year. The employees of the City work around the clock to provide top quality water to the entire community. 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.

Source Water Assessment
Aberdeen Proving Ground North
Building 250 Water Treatment Plant

The 1996 Safe Drinking Water Act Amendments require states to develop and implement source water assessment programs to evaluate the safety of all public drinking water systems. A Source Water Assessment (SWA) is a process of evaluating the vulnerability of a source of public drinking water supply to contaminants. This SWA was prepared by Whitman, Requardt and Associates (WRA) in October 2020 for the City of Aberdeen APGN Building 250 Water Treatment Plant. About 16,000 people in the Aberdeen Area of Aberdeen Proving Ground in Harford County, Maryland, are served by this water system.

B-250 and associated wells are located within the APGN Area. The source of B-250's water supply is a confined aquifer in the Potomac Group. Five production wells are used to pump the water out of this aquifer. The SWA area was delineated by a groundwater modeling of the five production wells. This modeling was conducted in Visual Modflow to produce a 10-year time of travel (TOT) area projected onto the ground surface and was based on the data from test wells.

Potential sources of contamination within the SWA area were identified based on WRA site visits, a review of geographic information system mapping, and various environmental reports provided by APGN. Well information and water quality data gathered during well testing were also reviewed.

The susceptibility analysis for B-250's water supply is based on a review of the test well water quality data, potential sources of contamination, aquifer characteristics, and proposed well construction. It was determined that B-250's water supply is not susceptible to contaminants originating at the land surface due to the protected nature of the confined aquifer. The water supply is susceptible to naturally occurring iron in the aquifer.

WRA prepared a Groundwater Monitoring Report about the Plumb Point Well Field at APGN for the City of Aberdeen, Maryland. In accordance with the authorized scope, WRA compiled and interpreted information provided by the City which includes pumpage totals from production wells, water levels in wells, and the results of laboratory tests of groundwater quality.

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