



West Nottingham Academy

2023 Annual Drinking Water Quality Report

MD0070204

Is my water safe?

West Nottingham Academy is pleased to provide this annual water quality report for calendar year 2022. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. West Nottingham Academy routinely monitors for contaminants in your drinking water and are pleased to report we met all state and federal drinking water regulations last calendar year.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from and what are the potential sources of contamination?

Your drinking water is supplied by multiple wells located in the Sykesville Formation, a fractured-rock aquifer. The susceptibility analysis for West Nottingham Academy's water supply is based on a review of the water quality data, potential sources of contamination, aquifer characteristics, and well integrity. For more information on the source of your water, the significant potential sources of contamination, and susceptibility analysis, contact the Maryland Source Water Assessment Program at the Maryland Department of the Environment at (410) 537-3714 or visit on the web at: https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx

Why may there be contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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:

1. Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. 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.
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

4. 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.
5. 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected in your water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, may be up to five years old.

Contaminant	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# sites over AL	Units	Violation	Typical Source
Copper	09/15/2021	1.3	1.3	1.11	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems
Lead	09/15/2021	0	15	3.5	0	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits

Contaminant (units)	Collection Date	MCLG	MCL	Highest Level Detected	Range		Violation	Typical Source
					Low	High		
Disinfectants and Disinfection By-Products:								
Chlorine (ppm)	2022	MRDLG=4	MRDL=4	0.3	0.2	0.3	No	Water additive used to control microbes
Inorganic Contaminants:								
Barium (ppm)	02/05/2021	2	2	0.0308	0.0308	0.0308	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	02/05/2021	100	100	6.7	6.7	6.7	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	02/05/2021	4	4	0.6	0.6	0.6	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as Nitrogen (ppm)	2022	10	10	5	2.3	5.2	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radioactive Contaminants:								
Combined Radium 226/228 (pCi/L)	04/13/2021	0	5	0.6	0	0.6	No	Erosion of natural deposits

Contaminant (units)	Collection Date	MCLG	MCL	Highest Level Detected	Range		Violation	Typical Source
					Low	High		
Unregulated Contaminants (PFAS):								
PFOA (ppt)	09/27/2022	---	---	15.4	2.87	15.4	No	Runoff from fire training/fire response sites, industrial sites, and landfills
PFOS (ppt)	09/27/2022	---	---	54.7	1.65	54.7	No	Runoff from fire training/fire response sites, industrial sites, and landfills
PFHxS (ppt)	09/27/2022	---	---	47.6	1.78	47.6	No	Runoff from fire training/fire response sites, industrial sites, and landfills
PFBS (ppt)	09/27/2022	---	---	4.22	ND	4.22	No	Runoff from fire training/fire response sites, industrial sites, and landfills
Total PFAS (ppt)	09/27/2022	---	---	140.05	12.37	140.05	No	Runoff from fire training/fire response sites, industrial sites, and landfills

Important Drinking Water Definitions:

MCLG: Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risks for safety. MCLG allows for margin of safety.

MCL: Maximum Contaminant Level. 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.

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

ALG: Action Level Goal. 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.

MRDLG: Maximum Residual Disinfectant Level Goal. 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 microbe contaminants.

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbe contaminants.

Units of Measurement & Conversions:

NA: Not applicable

ppm: parts per million, or milligrams per liter (mg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radioactivity)

ppb: parts per billion, or micrograms per liter (µg/L)

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. West Nottingham Academy 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 Mike Keenan at 410-658-9390. 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>.

Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Barium

Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Chromium

Some people who drink water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Nitrate

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 in drinking water 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.

PFAS

PFAS – or 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.

Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. PFOA concentrations from samples taken from our water system in 2022 ranged from 2.87 – 15.4 parts per trillion (ppt); PFOS concentrations from samples taken from our water system in 2022 ranged from 1.65 – 54.7 ppt. In March 2023, EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs. EPA will publish the final MCLs and requirements by the end of 2023 or beginning of 2024. Additional information about PFAS can be found on the MDE website: <https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx>

West Nottingham Academy

For additional information or questions contact:

**Mike Keenan
(410)-658-9390**