City of Bethlehem 2024 Drinking Water Consumer Confidence Report
PWSID 3480046

Este informe contiene información importante sobre su agua potable. Está disponible en español en https://www.bethlehem-pa.gov/Water-Sewer-Resources/Consumer-Confidence-Report.

This report is an overview of the City of Bethlehem's drinking water quality from testing performed in 2024. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (DEP) regulations. We are committed to providing you with this information because informed customers are our best allies. If you have any questions about this report or concerns about your water quality, call the Bethlehem Water Lab at 610-865-7144. You can also visit the City's Water & Sewer Resources website, https://www.bethlehem-pa.gov/Water-Sewer-Resources, for more information about your water that also includes tips on water conservation. For more information about our drinking water sources and watersheds, visit the Bethlehem Authority website, https://bethlehemauthority.org/.

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 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).

We encourage public interest and participation in our community's decisions affecting our drinking water. The public is welcome at City Council and Bethlehem Authority meetings. Regular City Council meetings are held on the first and third Tuesday of each month at 7:00 PM in Town Hall, 10 East Church Street, Bethlehem, PA. Bethlehem Authority meetings are held on the second Thursday of each month at 3:30 PM in City Hall, Room B-504, 10 East Church Street, Bethlehem, PA. Any changes to City Council meetings will be posted at https://www.bethlehem-pa.gov/Calendar. Any changes to Bethlehem Authority meetings will be posted at https://bethlehemauthority.org/meetings.

City of Bethlehem's drinking water comes entirely from surface sources. The Wild Creek Reservoir in Towamensing Township, Carbon County, has a watershed covering 22 square miles and the Penn Forest Reservoir in Penn Forest Township, Carbon County and Polk Township, Monroe County, has a watershed covering 17 square miles. This primary water supply is located 22 miles north of the City. The Tunkhannock Creek, Tunkhannock Township, Monroe County, provides a supplemental supply to the Penn Forest Reservoir. Dual transmission mains carry water to the City's Water Filtration Plant in Lehigh Township, Northampton County, where it is treated according to all applicable regulations and sent to the distribution system to be enjoyed at your tap.


Wild Creek Reservoir

The Bethlehem Authority owns approximately 13,600 acres around the Wild Creek and Penn Forest Reservoirs and approximately 9,000 acres around the Tunkhannock Creek and restricts any activity on these lands that could contaminate these water supplies. There is no public access to the reservoirs and activities such as boating are prohibited. As a result of this prohibition, MTBE, a fuel additive known to contaminate some water supplies throughout the country, has not been detected in our raw water supply.

A Source Water Assessment of the Tunkhannock Creek Intake was completed in 2001 by Spotts, Stevens and McCoy, Inc. for the PA DEP. The assessment found that the Tunkhannock Intake is potentially most susceptible to road deicing materials, accidental spills along roads, and leaks in underground storage tanks. Overall, the Tunkhannock Creek Watershed has little risk of significant contamination. A summary report of the Tunkhannock Intake Assessment is available by visiting the DEP Source Water Assessment Summary Reports eLibrary website, https://greenport.pa.gov/elibrary/GetFolder?FolderID=4538, and clicking on the City of Bethlehem file. A Source Water Assessment of the Wild Creek Watershed found that the watershed is potentially most susceptible to individual point source activities, including above ground storage tanks and underground petroleum storage tanks, and to non-point source activities, including fuel oil storage tanks, household cleaning supplies, highway spills, highway salt applications, lawn care supplies, on-lot sewage disposal, petroleum pipelines, swimming pools, wells (abandoned or active), and bore holes (abandoned or active). Because of all the potential threats identified near the Wild Creek water supply, the City developed and implemented a Source Water Protection plan in 2010. The plan was approved by the DEP in 2011. The City of Bethlehem reviews the plan annually and makes any updates as needed. The complete report was distributed to the City of Bethlehem's Water & Sewer Resources Department, local municipalities, county planning agencies, and DEP offices. Copies of the complete report are available from the PA DEP Northeast Regional Office, Records Management Section, at 570-826-5472. Additional required health effects information would be included in this report in the event that monitoring of either the raw or finished water detects any contaminants associated with source water pollution.

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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:

- Microbial contaminants, such as viruses and bacteria, which may come from septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from stormwater runoff, industrial or domestic wastewater discharges, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses and stormwater runoff.
- Radioactive contaminants, which are naturally occurring.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes, and can also come from gas stations, stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the EPA and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems, such as the City of Bethlehem's. Food and Drug Administration (FDA) and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. For the weeks of February 26 – March 1 and May 26 – June 1 in 2024, we did not collect a weekly distribution chlorine residual sample as required. This was due to an oversight and has been corrected, but we cannot be sure of the quality of our drinking water for those weeks.

Water Quality Data

The following tables list all the drinking water contaminants that were detected during the 2024 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented in these tables is from testing done January 1 – December 31, 2024, unless otherwise noted. The DEP allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, is from prior years and is noted as such in the tables.

Terms & abbreviations used:

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

Maximum Contaminant Level (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 (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 (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 Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected health risks. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity this means any monthly sample greater than 1 NTU or 95% of the monthly samples are greater than or equal to 0.3 NTU.

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

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

NTU: Nephelometric Turbidity Units

NA: not applicable

ND: not detected

Chemical Contaminants	Units	MCL	MCLG	Detected Level	Range of Detection	Violation	Major Sources
Fluoride [1]	ppm	2	2	<0.50	NA	NO	Water additive which promotes strong teeth
Iron	ppm	0.3	NA	0.02	0.02 - 0.03	NO	Naturally occurring element
Sodium	ppm	1000	NA	6.7	6.3 – 8.3	NO	Naturally occurring element
Zinc	ppm	5	NA	0.0478	0.034 – 0.059	NO	Naturally occurring element
Sulfate	ppm	250	NA	4.62	4.48 – 4.71	NO	Natural sources
Total Dissolved Solids	ppm	500	NA	45	33 – 54	NO	Natural sources, chemicals used in the water treatment process, and distribution piping.
Total Trihalomethanes (TTHMs)	ppb	80	0	69	26 – 82	NO	By-product of drinking water chlorination
Five Haloacetic Acids (HAA5s)	ppb	60	NA	32	17 – 38	NO	By-product of drinking water chlorination

Microbiological Contaminants	MCL	MCLG	Highest % of Positive Samples Collected in Any One Month	Violation	Major Sources
Total Coliform	presence of coliform in >5% of monthly samples	NA	0	NO	Naturally present in the environment

Lead & Copper (2022)	Units	AL	MCLG	Detected Level	# of Sites Found Above AL	Violation	Major Sources
Lead	ppb	15	0	1	none	NO	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.054	none	NO	Corrosion of household plumbing

[1] The City of Bethlehem has been adding fluoride to their drinking water since June 1971.

Performance Monitoring	Units	MCL	MCLG	Detected Level	Date Detected	Lowest Monthly % of Samples Meeting TT	Violation	Major Sources
Turbidity [2]	NTU	TT	NA	0.092	11/18/2024	100	NO	Soil runoff

Performance Monitoring	Units	Minimum Chlorine Residual	MRDLG	Range of Detection	Violation	Major Sources
Entry Point Chlorine Residual	ppm	0.2	4	1.03 – 1.46	NO	Water additive used to control microbes

Performance Monitoring	Units	MRDL	MRDLG	Month of Highest Average Result	Range of Average Monthly Results	Violation	Major Sources
Distribution Chlorine Residual	ppm	4	4	February	0.74 – 0.97	NO	Product of drinking water disinfection

Performance Monitoring	Units	Minimum Orthophosphate Level	MCL	Detected Level	Range of Detection	Violation	Major Sources
Entry Point Orthophosphate	ppm	0.4	NA	0.52	0.41 – 0.67	NO	Water additive for corrosion control
Distribution Orthophosphate	ppm	0.2	NA	0.48	0.31 – 0.68	NO	Water additive for corrosion control

Additional Health Information

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 of Bethlehem 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 Bethlehem Water Lab at 610-865-7144. 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. The City of Bethlehem prepared a service line inventory that includes the type of material contained in each service line in our distribution system. This inventory can be accessed online at the City's Lead Service Lines website at https://www.bethlehem-pa.gov/Water-Sewer-Resources/Public-Information/Lead-Service-Lines and clicking on the link for the City of Bethlehem's Service Line Inventory map or by contacting the Bethlehem Water Lab at 610-865-7144. If your service line material is unknown, there are also instructions on the Lead Service Lines website to identify the material and report your results to the City.

In 2024, the City of Bethlehem monitored unregulated contaminants as required by EPA's fifth Unregulated Contaminant Monitoring Rule (UCMR5). Unregulated contaminant monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. The City of Bethlehem's results for the contaminants tested, which included 29 per- and polyfluoroalkyl substances (PFAS) and lithium, were all non-detect. You can find more information about UCMR5 at https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly such as people in apartments, nursing homes, schools, and businesses. You can do this by posting this notice in a public place or distributing copies by hand or mail.

[2] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.