

2021 Annual Water Quality Report

GLEN ROCK WATER AUTHORITY

11714 North Main Street Ext., P.O. Box 205
 Glen Rock, Pennsylvania 17327 -0205



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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 from EPA’s Safe Drinking Water Hotline at (800) 426-4791 or website at www.epa.gov/safewater.

The York Water Company maintains a water filtration plant in Spring Garden Township, York County. The treated water entering the Glen Rock Water Authority’s distribution system is disinfected with chloramines. Disinfection is necessary to inactivate microorganisms which are naturally present in the environment.

The Authority has two storage tanks as part of its water distribution system, a 300,000-gallon storage tank and a 600,000-gallon storage tank.



Safety of Drinking Water

Some people may be more vulnerable to drinking water contaminants than the general population. Immuno-compromised persons, such as people 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 guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA’s Safe Drinking Water Hotline at (800) 426-4791 or EPA’s website at www.epa.gov/safewater.

Glen Rock Sources of Water

The water system, owned and operated by the Glen Rock Water Authority, is permitted under the Pennsylvania Safe Drinking Water Act and is identified as PWS ID No. 7670050. The water originates from the York Water Company through an interconnection on Church Street in Shrewsbury Township, York County. The York Water Company’s water source is the combined flow of the South and East Branches of Codorus Creek.



Codorus Creek is classified as a surface water source. As water travels over the surface of the land, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or from human activity.

For More Information About Your Water:

Glen Rock Water Authority Board Meetings

Second Wednesday of Every Month @ 7:00 PM

Meeting Location: Glen Rock Wastewater Treatment Plant

11714 N. Main St Ext.
 Glen Rock

Contact Person: Dale E. Getz
235-2082

Consumer Confidence Report Rule

In 1996, Congress amended the Safe Drinking Water Act, adding a provision that requires all community water systems to deliver to their customers a brief annual water quality report. Final regulations were promulgated by EPA in 1998, known as the Consumer Confidence Report Rule, which establishes the requirements for these annual water quality reports. The deadline for distribution of the annual report is July 1st of every year, for the preceding calendar year.

Water Conservation

Water Conservation plays a key role in providing safe, healthy drinking water to the public. Water, especially clean freshwater, is a limited resource. The Glen Rock Water Authority encourages its customers to use water efficiently to conserve supplies for future generations.

- Be aware of personal water use.
- Consider use of water-saving plumbing fixtures and appliances.
- Repair leaks inside the home.
- Adopt water saving habits.

For more information on ways to conserve water, please visit the following Pennsylvania Department of Environmental Protection (DEP) website:

<http://www.dep.pa.gov/Citizens/My-Water/WaterConservation>

Treatment of Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants.

Safety of Drinking Water

Some people may be more vulnerable to drinking water contaminants than the general population. Immuno-compromised persons, such as people 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 guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791 or EPA's website at www.epa.gov/safewater.

Common Contaminants in Water

Contaminants that may be present in the 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 storm water runoff, industrial or domestic wastewater discharges, mining or farming.**

☛ **Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.**

☛ **Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and which may also come from gas stations, urban storm water runoff and septic systems.**



☛ **Radioactive contaminants, which can be naturally-occurring or be the result of mining activities.**

In order to ensure that tap water is safe to drink, EPA establishes regulations which limit the amount of certain contaminants in water provided by public water systems. A source water assessment plan (SWAP) was prepared for the water sources of the York Water Co. The assessment evaluates contaminants that may enter the water drawn from the intakes on the South Branch Codorus Creek. Potential sources of contamination identified include transportation corridors, agricultural crop and livestock operations, urban/storm water runoff and wastewater treatment plant discharges. There are several watershed restoration activities underway in the assessment area.

Contaminants Detected in Your Water

The Glen Rock Water Authority is pleased to report that the water that you drink has complied with all federal and state drinking water standards during 2021. However, even with the best water treatment, it is not always possible to remove all contaminants. Earth and rock act as natural filters and remove many of these contaminants. The Glen Rock Water Authority and The York Water Company tested for approximately 74 different contaminants.

Of those 74 contaminants tested, only 13 different contaminants were detected and were all within acceptable levels. These 13 contaminants and their potential source of contamination are shown on the following pages. Contaminants tested but not detected or detected below the lowest readable level include Antimony, Arsenic, Beryllium, Cadmium, Chromium, Coliform Bacteria, Free Cyanide, Fluoride, Gross Alpha, Gross Beta, Mercury, Nickel, Nitrite, Radium-226, Radium-228, Selenium, Synthetic Organic Contaminants (19), Thallium, Unregulated Pesticides and Herbicides (20), Uranium, and Volatile Organic Contaminants (21).

Abbreviations in brackets represent testing conducted by either the Glen Rock Water Authority [GRWA] or the York Water Company [YWC].

Glen Rock Water Authority did not test for asbestos contaminants in their distribution system in 2021.

Definitions of Terms



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 disinfectant residual, in this case Chlorine, that is allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant residual in drinking water, in this case Chloramines, below which there is no known or expected risk to health.

Nephelometric Turbidity Unit (NTU): Measure of turbidity which is the clarity of water.

Parts Per Billion (ppb): Unit of concentration equivalent to micrograms per Liter ($\mu\text{g/L}$).

Parts Per Million (ppm): Unit of concentration equivalent to milligrams per Liter (mg/L).

Picocuries Per Liter (pCi/L): Unit of measure for radiation.

Running Annual Average (RAA): Quarterly calculation using previous 12 monthly averages.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

TABLE OF CONTAMINANTS				
Contaminants	MCL	MCLG	Test Value ¹	Major Sources in Drinking Water
INORGANIC CONTAMINANTS				
Atrazine [YWC]	3 ppb	3 ppb	0.33 ppb (2020)	Runoff from herbicide used on row crops.
Barium [YWC]	2 ppm	2 ppm	0.02 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate [YWC]	10 ppm	10ppm	Average: 3.80 ppm	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
			Range: 1.90 - 5.0 ppm	
MICROBIOLOGICAL CONTAMINANTS				
Turbidity ² [YWC]	Minimum 95% of monthly samples taken <0.3 NTU	NA	100% samples < 0.1 NTU	Soil erosion and runoff
	Maximum: 1.0 NTU		Maximum: 0.048 NTU	
Total Coliform Bacteria [YWC]	Presence of Coliform Bacteria in less than 5% of Monthly samples	0	0	Naturally present in the Environment
Fecal Coliform and E. Coli [YWC]	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive	0	0	Human and animal fecal waste
SURFACE WATER TREATMENT RULE				
Chloramines [YWC]	MRDL = 4.0 ppm	MRDLG = 4.0 ppm	Range: 0.86 – 2.84 ppm	Water additive used to control microbes
<p>¹ Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.</p> <p>² Turbidity is a measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.</p> <p>³ EPA considers 50 pCi/L to be the level of concern for beta particles.</p> <p>The Pennsylvania Department of Environmental Protection (DEP) has developed a source water assessment and protection (SWAP) plan for York Water Company's surface water intake on the South Branch Codorus Creek. The purpose of SWAP plans is to determine potential sources of pollution that may impact public water supplies and to identify the appropriate measures to protect such water supplies. The most significant potential source of contamination to the intake on the South Branch Codorus Creek is from transportation spills, followed by agricultural and urban storm water runoff. There are numerous restoration initiatives underway in the assessment area involving citizen groups as well as the York County Conservation District. The final SWAP report is available from DEP upon request, and a report summary is available through DEP's website by visiting:</p> <p>http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm</p>				

TABLE OF CONTAMINANTS				
Contaminants	MCL	MCLG	Test Value ¹	Major Sources in Drinking Water
DISINFECTION BYPRODUCTS (DBPs) AND DISINFECTANT RESIDUALS				
Chlorine [GRWA]	MRDL = 4.0 ppm	MRDLG = 4.0 ppm	Average: 2.43 ppm Range: 0.20-3.19 ppm	Water additive used to control microbes
HAA5 ³ [GRWA]	60 ppb	NA	Average: 18.0 ppb	Byproduct of drinking water disinfection
HAA5 [YWC]	60 ppb	0 ppb	Maximum RAA ² : 23.2 ppb Range: 11.6-52.3 ppb (2020)	Byproduct of disinfectant addition
TTHM ⁴ [GRWA]	80 ppb	NA	Average: 59.2 ppb	Byproduct of drinking water disinfection
TTHM [YWC]	80 ppb	0 ppb	Maximum RAA: 25.6 ppb Range: 13.9 – 42.0 ppb	Byproduct of disinfectant addition
LEAD AND COPPER RULE				
Copper [YWC]	Action Level = 90% of all homes tested must be below 1.3 ppm	1.3 ppm	90% of all homes tested measured below 0.029 ppm 50 of 50 homes tested measured below 0.095 ppm	Corrosion of household plumbing systems. Erosion of natural deposits
Copper [GRWA]		1.3 ppm	0 ppm (2019) (2016)	Corrosion of household plumbing systems. Erosion of natural deposits
Lead ⁵ [YWC]	Action Level = 90% of all homes tested must be below 15 ppb	0 ppb	90% of all homes tested measured below 3.5 ppb 1 of 50 homes tested measured greater than 15 ppb	Corrosion of household plumbing systems. Erosion of natural deposits
Lead ⁵ [GRWA]		0 ppb	0 ppb (2019)	Corrosion of household plumbing systems. Erosion of natural deposits
<p>¹ Pennsylvania DEP allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data presented on this table, though representative, may be more than one year old. In these cases, the calendar year in which water samples were tested for these contaminants is shown in parentheses.</p> <p>² RAA represents Running Annual Average.</p> <p>³ HAA5 represents Total Haloacetic Acids.</p> <p>⁴ TTHM represents Total Trihalomethanes.</p> <p>⁵ Infants and young children are typically more vulnerable to Lead in drinking water than the general population. It is possible that Lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated Lead levels in your home's water, you may wish to have your water tested. In addition, flush your tap for 30 seconds to 2 minutes before using the tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791 or at EPA's website at www.epa.gov/safewater. Lead testing is completed every 3 years and results shown are an average. GRWA began adding orthophosphate in an effort to lower lead levels following the 2007 testing.</p>				