

Acronyms and Definitions

Maximum Contaminant Level (MCL): The highest level of 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.

Recommended Upper Limit (RUL): The level of a secondary contaminant in drinking water below which there is no known or expected adverse effect of the taste, color, odor, or appearance of such water, or which may adversely affect the public welfare.

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 risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

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

Variances and Exceptions: State or EPA permission not to meet a MCL or a treatment technique under certain conditions.

ppm: Concentration in parts per million or milligrams per liter (mg/L); this is equivalent to \$0.01 of \$10,000.

ppb: Concentration in parts per billion or micrograms per liter (µg/L); this is equivalent to \$0.01 of \$10,000,000.

pCi/L: Picocuries per liter; a measure of radioactivity.

NLE: No Level Established

NTU: Nephelometric turbidity units (units describing how cloudy a water sample appears).

MFL: million fibers per liter.

<: When seen in the table, it usually refers to below detectable levels.

≤: Less than or equal to; when seen in the table, it usually refers to below or equal to detectable levels.

Contaminant: Anything found in water (including microorganisms, minerals, chemicals, radionuclides, etc.) that may be harmful to human health.

Raw Water: Water in its natural state prior to any treatment for drinking.

Source Water: Water in its natural state originating from the water- shed that supplies a water system with its raw water.

Watershed: The land area from which water drains into a stream, river, or reservoir.

Treated Water: Water to be used by a public water system that has received the application of approved water treatment chemicals.

Drinking Water: Water that has been treated to comply with EPA regulations and is pumped to the water customer for use.

Turbidity: Turbidity is a measure of the cloudiness of the water, which is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

FOOTNOTES

1. TWW averages 151 samples per month. The requirement is 120 samples monthly. An MCL violation would be triggered if, > 5% of the samples had TC detected or any detection of E-coli.
2. Beginning in 2017, Trenton Water Works was required to sample 100 sites every six months as are all large systems in the state.
3. Stage 2 DBPR monitoring is conducted quarterly. The results are shown are from the 2022 quarterly sampling.
4. The highest Locational Running Annual Average (LRAA) for TTHM and HAA5 is reported per regulation. All LRAAs which exceed the MCL shall be included. The LRAA is the average of the current and three previous quarterly results for each sample site location.
5. Data presented is derived from quarterly sample site results.
6. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. 99.93% of the turbidity readings in 2022 were below the treatment requirement of 0.3 NTU.
7. Chlorine residuals are taken during Coliform (bacteria) sampling in the distribution system.
8. Radioactive Contaminants (radionuclide) sampling is required once every 9-year monitoring period. The current compliance period is 2020-2028. Only detected results are reported. The results presented were sampled in 2014.
9. Inorganic compounds were tested in February of 2022.
10. NJDEP standards (SMCL).
11. Unregulated Contaminant Rule sampling assesses the potential risks associated with certain contaminants. The EPA will use this to determine if regulation is warranted,
12. Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptoporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are viable or capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may spread through means other than drinking water.
13. Secondary contaminants are non-enforceable guidelines regulating contaminants that may cause cosmetic effects or aesthetic effects in drinking water.
14. The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.
15. Per- or polyfluoroalkyl substances (PFAS) are man-made substances used in a variety of products, such as: stain resistant fabric, nonstick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. The New Jersey Department of Environmental Protection (NJDEP) has begun regulating one of these compounds: perfluorononanoic acid (PFNA). While all other PFAS are not regulated, New Jersey American Water recognizes the importance of testing for these contaminants
16. Trenton Water Works Lead Service Line (LSL) Inventory is available publicly and available online at www.twwleadprogram.com.
17. Trenton Water Works received a Synthetic Organic Compound (SOC) waiver from the NJDEP for the 2020-2022 compliance period.

Drinking Water Quality Results								
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/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 at 1-800-426-4791.								
BACTERIA ¹								
		2022 Positive Bacteria Results	TT		MCLG	Violation (Y/N)	Potential Source	
Total Coliform (TC)		5 positive samples out of 2,073 (0.24%)	Presence of coliform bacteria > 5% of monthly samples.		0	N	Naturally present in the environment; their presence indicates potential contamination	
METALS								
Lead and Copper Rule ²		Units	2022 Samples Exceeding Action Level	90% of samples were less	AL (90% Action Limit)	MCLG	Violation (Y/N)	Potential Source
Lead (1st Draw)	Jan-Jun	ppb	6 out of 120	7.24	15	0	N	Corrosion of household plumbing
	Jul-Dec		3 out of 95	3.33			N	
Copper (1st Draw)	Jan-Jun	ppm	2 out of 120	0.07109	1.3	0	N	Corrosion of household plumbing
	Jul-Dec		14 out of 95	0.13907			N	
DISINFECTANT BYPRODUCTS (DBP) – STAGE 2 ³								
Sampling Sites (8 Sites)	Units	2022 Highest LRAA ⁴	2022 Range of Values ⁵	MCL (LRAA)	MCLG	Violation (Y/N)	Potential Source	
Haloacetic Acids (HAA5)								
HAA5’s	ppb	49 (HAA5-4)	19.3 – 83.4	60	NLE	N	Byproduct of drinking water disinfection	
Total Trihalomethanes (TTHM)								
TTHM’s	ppb	68 (ST2ADD)	23 – 93	80	NLE	N	Byproduct of drinking water disinfection	
CLARITY CHARACTERISTICS – TESTED AT WATER TREATMENT PLANT ⁶								
	Units	2022 Highest Reported Level	2022 Range of Values	2022 Average Value	MCL	MCLG	Violation (Y/N)	Potential Source
Turbidity	NTU	0.620	0.015 -0.620	0.059	TT = 1 NTU	0	N	Soil runoff; river sediment
				99.93%	95% of monthly samples must be at or below 0.3			
FREE CHLORINE RESIDUAL ⁷								
	Units	2022 Annual Average	2022 Range of Values	2022 Highest Monthly Average Result	MRDL	MRDLG	Violation (Y/N)	Potential Source
Chlorine Residual	ppm	0.84	0.05-2.20	1.40	4	4	N	Chemicals added to control microbes
INORGANIC COMPOUNDS ⁹								
	Units	2022 Constituent Level	MCL	MCLG	Violation (Y/N)	Potential Source		
Barium	ppm	0.02	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
Chromium	ppb	1.1	100	100	N	Discharge from steel and pulp mills; erosion of natural deposits		
Fluoride	ppm	0.8	4	4	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge for fertilizer and aluminum factories.		
Nickel	ppm	0.0023	NLE	NLE	N	Erosion of natural deposits; found in the earth’s crust		
Nitrate (as Nitrogen)	ppm	1	10	10	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits		
SOURCE WATER PATHOGEN MONITORING ¹³								
Contaminant			TWW Source Waters	Typical Source				
Cryptosproidium, Oocysts/L			0 – 0.28	Microbial pathogens found in surface waters throughout the United States				
Giardia, Cysts/L			0 – 0.28					
ORTHOPHOSPHATE								
	Units	MCL	MCLG	Average Level Detected	Range of Values		Potential Source	
Orthophosphate	mg/L	NLE	NLE	0.36	0.18 – 0.58		Corrosion control chemical	
TOTAL ORGANIC CARBON								
	Units	MCL	MCLG	Highest Level Detected	Range of Values		Potential Source	
Total Organic Carbon	mg/L	NLE	NLE	1.3	1.1– 1.3		Naturally Present in the environment	
SECONDARY CONTAMINANTS ¹⁴								
	Units	2022 Constituent Level	RUL	Exceedance (Y/N)	Potential Source			
Chloride ¹⁰	ppm	56.5	250	N	Naturally present in the environment and road salt			
Hardness ¹⁰	ppm	80.6	250	N	Naturally occurring			
Sodium ¹⁰	ppm	24.3	50	N	Naturally occurring			
Sulfate ¹⁰	ppm	9.7	250	N	Naturally occurring			
Zinc	ppm	0.003	5	N	Naturally present in soils and ground & surface waters			
EMERGING CONTAMINANTS ¹⁵								
	Units	2022 Constituent Level	MCL	MCLG	Exceedance (Y/N)	Potential Source		
Perfluorooctanoic Acid (PFOA)	ng/L	2.7	13	NLE	N	Discharge from industrial chemical factories		
Perfluorooctanesulfonic Acid (PFOS)	ng/L	3.1	13	NLE	N	Discharge from industrial chemical factories		

Other Notes:

If present, elevated levels of 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. Trenton Water Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 2 to 3 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Trenton Water Works also has access to purchased groundwater as emergency water source from an adjacent water system. For further source water information, contact NJDEP Drinking Water Watch.

