

Source Water Assessment

NJDEP has prepared Source Water Assessment reports and summaries for all public water systems. The Source Water Assessment for the PVWC system (PWS ID 1605002) and the North Jersey District Water Supply Commission (NJWSC) (PWS ID 1613001) can be found online at the NJDEP's source water assessment website- <http://www.nj.gov/dep/watersupply/swap/index.html> or by contacting NJDEP's Bureau of Safe Drinking Water at 609-292-5550 or watersupply@dep.nj.gov.

If a system is rated highly susceptible for a contamination category, it does not mean a customer is – or will be – consuming contaminated water. The rating reflects the potential for contamination of a source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any of those contaminants are detected at frequencies and concentrations above allowable levels. The source water assessments performed on the intakes for each system list the following susceptibility ratings for a variety of contaminants that may be present in source waters:

Intake Susceptibility Ratings								
Sources	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radionuclides	Radon	Disinfection Byproduct Precursors
PVWC Surface Water (4 intakes)	(4) High	(4) High	(1) Medium (3) Low	(4) Medium	(4) High	(4) Low	(4) Low	(4) High
NJDWSC (5 intakes)	(5) High	(5) High	(2) Medium (3) Low	(5) Medium	(5) High	(5) Low	(5) Low	(5) High

2020 Water Quality Results- Table of Detected Contaminants						
Regulated Contaminant (units)	Goal (MCLG)	Highest Level Allowed (MCL)	PVWC Little Falls-WTP PWSID NJ1605002	NJDWSC Wanaque-WTP PWSID NJ1613001	Source of Substance	Violation?
Treated Drinking Water at the Treatment Plant						
Turbidity (NTU)	NA	Treatment Technique (TT) = 1 NTU	Highest Level Detected and Range (Low-High)		Soil run-off	No
			0.266 (0.021 -0.266)	0.9 (0.01-0.9)		
	NA	TT= % of samples <0.3 NTU (min 95%)	Lowest Monthly Percentage of Samples Meeting Turbidity Limits			
			100%	99.1%		
<i>Turbidity is a measure of the cloudiness of the water and is monitored as an indicator of water quality. High turbidity can limit the effectiveness of disinfectants.</i>						
Total Organic Carbon (%)	NA	TT=% removal or Removal Ratio	% Removal 55-82 (25 - 50 required)	Removal Ratio (0.8-1.1)	Naturally present in the environment.	No
Barium (ppm)	2	2	0.026 (0.016-0.026)	0.0078	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	No
Bromate (ppm)	NA	10	6.98 (<5.0-6.98)		By-product of drinking water disinfection	No
Fluoride (ppm)	4	4	0.050 (ND-0.05)	ND	Erosion of natural deposits.	No
Nickel (ppb)	NA	NA	3.40 (1.96-3.40)	ND	Erosion of natural deposits.	No
Nitrate (ppm)	10	10	2.14 (0.59-2.14)	0.154	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	No
Radium (pCi/L)	0	5	ND (2014 Data)	ND (2014 Data)	Erosion of Natural Deposits	No

NA - not applicable
ND - not detected

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, 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.

Source Water Pathogen Monitoring		
Contaminant	Results for PVWC Plant Intake	Typical Source
<i>Cryptosporidium</i> (Oocysts/L)	0.0 - 0.09	Microbial pathogens found in surface waters throughout the United States.
<i>Giardia</i> (Cysts/L)	0.0 - 0.83	

PVWC regularly samples source water for *Cryptosporidium* and *Giardia*. The data collected in 2020 is presented in the table above.

2020 Water Quality Results- Table of Detected Secondary Parameters					
Contaminant	NJ Recommended Upper Limit (RUL)	PVWC Little Falls-WTP PWSID NJ1605002		RDWSC Wanaque-WTP PWSID NJ1613001	
		Range of Results	RUL Achieved?	Result	RUL Achieved?
Treated Drinking Water at the Entry Point to the Distribution System					
Alkylbenzene Sulfonate [ABS]/Linear Alkylbenzene Sulfonate [LAS] (ppb)	500	90-120	Yes	ND	Yes
Alkalinity (ppm)	NA	47-79	NA	39	NA
Aluminum (ppb)	200	12.8-32.4	Yes	77	Yes
Chloride (ppm)	250	92.2-138.1	Yes	47.2	Yes
Color (color units)	10	<5	Yes	2	Yes
Copper (ppm)	<1	ND	Yes	0.012	Yes
Hardness, CaCO ₃ (ppm)	250	88-178	Yes	53	Yes
Iron (ppb)	300	<100	Yes	104	Yes
Manganese (ppb)	50	11.5-25.5	Yes	5.3	Yes
Odor (Threshold Odor Number)	3	2-100	No	<1	Yes
pH	6.5 to 8.5 (optimum range)	7.6-8.4	Yes	8.05	Yes
Sodium (ppm)	50	46.1-94.8	No*	23.4	Yes
Sulfate (ppm)	250	44.7-87.8	Yes	7.54	Yes
Total Dissolved Solids (ppm)	500	301-510	No	104	Yes
Zinc (ppb)	5000	1.9-3.7	Yes	13	Yes

**PVWC's finished water was above New Jersey's Recommended Upper Limit (RUL). Possible sources of sodium include natural soil runoff, roadway salt runoff, upstream wastewater treatment plants, and a contribution coming from chemicals used in the water treatment process. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be a concern to individuals on a sodium restricted diet.

Testing For Emerging Contaminants

Contaminant	PVWC Little Falls-WTP PWSID NH605002	<i>Test results presented in this table were collected in 2020 to monitor the occurrence of emerging contaminants. There are currently no EPA drinking water standards for these contaminants.</i>
	Results	
Treated Drinking Water at the Entry Point to the Distribution System		
Chlorate (ppb)	121.2-344.9	
1,4-Dioxane (ppb)	ND-0.243	
Perfluorobutanesulfonic acid [PFBS] (ppt)	<2.0-3.1	PVWC monitors for the presence of perfluorochemicals in source water and finished drinking water monthly.
Perfluoroheptanoic acid [PFHp/A] (ppt)	<2.0-3.1	
Perfluorohexanesulfonic acid [PFHxS] (ppt)	<2.0-2.1	The NJDEP has formally established MCLs for Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) of 14 ppt and 13 ppt respectively.
Perfluorohexanoic acid [PFHxA] (ppt)	3.1-8.6	
Perfluorooctanesulfonic acid [PFOS] (ppt)	2.9-4.4	These rules were effective January 1, 2021. The results observed in 2021 were below the NJDEP newly established MCL.
Perfluorooctanoic acid [PFOA] (ppt)	4.8-7.6	

ADDITIONAL INFORMATIONAL RESOURCES

EPA Drinking Water website: www.epa.gov/safewater
 NJDEP Water Supply website: www.nj.gov/dep/watersupply
 American Water Works Association (AWWA) website: www.awwa.org

EPA Safe Drinking Water Hotline: 800-426-4791
 NJDEP Bureau of Safe Drinking Water: 609-292-5550
 AWWA New Jersey Section website: www.njawwa.org

Totowa Boro Water Dept. NJ 1612001 2020 Water Quality Data

				DISTRIBUTION SYSTEM RESULTS	
PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	TYPICAL SOURCE	
MICROBIOLOGICAL CONTAMINANTS				Highest Monthly Result	
Total Coliform Bacteria, %	N/A	N/A	5% of monthly samples are positive	0%	Naturally present in the environment.
DISINFECTION BYPRODUCTS				Highest LRAA and Range of Results	
Haloacetic Acids (HAA5), ppb	Yes	N/A	60	.024MG/L .005MG/L-.022MG/L	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM), ppb	Yes	N/A	80	.066MG/L .032MG/L-.049MG/L	By-product of drinking water disinfection.
DISINFECTANTS				Highest RAA and Range of Results	
Chlorine, ppm	Yes	4	4	1.20MG/L 0.70MG/L-.110MG/L	Water additive used to control microbes.
COPPER AND LEAD				90TH PERCENTILE	
Lead (ppm)	Yes	N/A	N/A	Will test again in 2021	Corrosion of household plumbing systems
Copper (ppm)	Yes	N/A	N/A	Will test again in 2021	Corrosion of household plumbing systems