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 (NJDWSC) (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 resulted the following susceptibility ratings for a variety of contaminants that may be present in source waters:

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

2023 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 Treatment Plant						
Turbidity (NTU)	N/A	Treatment Technique TT =1 NTU	**Highest Level Detected and Range (Low - High)**		Soil run-off	No
			0.121 (0.028-0.121)	0.66 (0.03-0.66)		
	N/A	TT = % of samples <0.3 NTU (min 95%)	**Lowest Monthly % of Samples meeting Turbidity Limits**			
			100%	99.96%		
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.						
Total Organic Carbon (%)	N/A	TT = % Removal or Removal Ratio	**% Removal Achieved Range:**	**Removal Ratio**	Naturally present in the environment	No
			46.4 - 81.4	0.9 - 1.3		
			Required: 25-45			
Barium (ppm)	2	2	0.018 (0.016-0.018)	0.00961 (ND - 0.00961)	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride (ppm)	NJ = 2 Fed = 4	NJ = 2 Fed = 4	0.06 (<0.05 - 0.06)	ND[1]	Erosion of Natural Deposits	No
Nickel (ppb)	N/A	N/A	2.6 (2.1 - 2.6)	ND[1]	Erosion of Natural Deposits	No
Nitrate (ppm)	10	10	1.82 (0.62-1.82)	0.267 (ND - 0.267)	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natual deposits	No
Combined Radium (pCi/L)	0	5	ND (2023 Data)	1.5 (2023 Data)	Erosion of Natural Deposits	No
Perfluorooctanesulfonic acid [PFOS] (ppt)	0	14[2]	5.52 highest running annual average 3.27 - 6.95	<3.63	Metal plating and finishing, discharge from industrial facilities, aquoes film- forming (fire-fighting) foam	No
Perfluorooctanoic acid [PFOA] (ppt)	0	13[2]	7.99 highest running annual average 4.6 - 9.96	<4.38	Metal plating and finishing, discharge from industrial facilities, aquoes film- forming (fire-fighting) foam	No

[1] *These values taken from NJ Drinking Water Watch.* [2] *MCL created by the state of New Jersey. Currently there is no Federal MCL for perfluorinated compounds.*

2023 Water Quality Results - Table of Detected Secondary Contaminants					
Contaminant (units)	NJ Recommended Upper Limit (RUL)	PVWC Little Falls-WTP PWSID: NJ1605002		NJDWSC Wanaque-WTP PWSID: NJ1613001	
		Range of Results	RUL Achieved	Result	RUL Achieved
Alkylenzene Sulfonate [ABS]/ Linear Alkylbenzene Sulfonate [LAS] (ppb)	500	70-130	Yes	<50.0	Yes
Alkalinity (ppm)	N/A	50 - 57.5	N/A	40.0	N/A
Aluminum (ppb)	200	13.8 - 21.2	Yes	37.3	Yes
Chloride (ppm)	250	66.2 - 103.6	Yes	52.2	Yes
Color (CU)	<10	<5	Yes	2	Yes
Copper (ppm)	<1	ND	Yes	0.0152	Yes
Hardness, $CaCO_3$ (ppm)	250	84 - 100	Yes	70.0	Yes
Iron (ppb)	300	<100	Yes	<200	Yes
Manganese (ppb)	50	9.9-17.7	Yes	17.7	Yes
Odor (Threshold Odor Number)	3	7.0 - 14.0	No[3]	<1.00	Yes
pH	6.5 to 8.5 (optimum range)	7.84 - 8.20	Yes	8.15	Yes
Sodium (ppm)	50	50.2 - 81.1	No[4]	33.0	Yes
Sulfate (ppm)	250	44.1 - 59.3	Yes	8.11	Yes
Total Dissolved Solids (ppm)	500	203.5 - 327.5	Yes	79.0	Yes
Zinc (ppb)	5000	1.4 - 22.8	Yes	<10	Yes

[3] The Odor exceeds the New Jersey's Recommended Upper Limit (RUL) due to chlorine disinfection.

[4] PVWC's finished water was above New Jersey's Recommended Upper Limit (RUL). Possible source of sodium include soil runoff, roadway salt runoff, upstream wastewater treatment plants and a contribution coming from chemical used in the water treatment process. For healthy individuals,sodium levels are of less concern, however high sodium levels may be a concern with individuals on a sodium restricted diet.

NA – Not Applicable

ND – Not Detected

Source Water Pathogen Monitoring

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 avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may spread through means other than drinking water.

PVWC samples our source water for *Cryptosporidium* and *Giardia*. The data collected in 2023 is presented in the table above.

Contaminant	Results for PVWC Plant Intake	Typical Source
Cryptosporidium (Oocysts/L)	ND - 0.19	Microbial pathogens found in surface waters throughout the United States.
Giardia (Cysts/L)	ND – 0.47	

Testing For Emerging Contaminants - PVWC PWSID NJ1605002		
Contaminant	**PVWC Little Falls-WTP PWSID NJ1605002**	**Test results presented in this table were collected in 2023 to monitor the occurrence of emerging contaminants. There are currently no EPA drinking water standards for these contaminants.**
	Range of Results	
Treated Drinking Water at the Entry Point to the Distribution System		
Chlorate (ppb)	210.5 149.8 - 283.0	
1,4-Dioxane (ppb)	<0.07	
Perfluorobutanesulfonic acid [PFBS] (ppt)	<1.83-3.61	PVWC monitors for the presence of perfluorochemicals in source water and finished drinking water monthly.
Perfluoroheptanoic acid [PFHp/A] (ppt)	<1.84-3.1	
Perfluorohexanesulfonic acid [PFHxS] (ppt)	<1.84-3.49	
Perfluorohexanoic acid [PFHxA] (ppt)	2.87-10.6	

Totowa Boro Water Dept. NJ 1612001 2023 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	.020MG/L .003MG/L--0.30MG/L	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM), ppb	Yes	N/A	80	.055MG/L .048MG/L--.062MG/L	By-product of drinking water disinfection.
DISINFECTANTS				Highest RAA and Range of Results	
Chlorine,ppm	Yes	4	4	0.90MG/L 0.68MG/L--1.20MG/L	Water additive used to control microbes.
COPPER AND LEAD				90TH PERCENTILE	
Lead (ppm)	N/A	N/A	N/A	Will test again in 2024	Corrosion of household plumbing systems
Copper (ppm)	N/A	N/A	N/A	Will test again in 2024	Corrosion of household plumbing systems