

**PASSAIC VALLEY WATER COMMISSION (PVWC) PWS ID NJ1605002 - 2018 WATER QUALITY DATA**

				Water Treatment Plant Results		
PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	PVWC Little Falls WTP PWS ID NJ1605002	NJDWSC Wanaque WTP PWS ID NJ1613001	TYPICAL SOURCE
TURBIDITY AND TOTAL ORGANIC CARBON				Highest Result (Range of Results)	Highest Result (Average)	
Turbidity, NTU*	Yes	NA	TT = 1	0.36 (0.021 - 0.36)	0.41 (0.06 average)	Soil runoff.
	Yes	NA	TT = percentage of samples <0.3 NTU (min 95% required)	Lowest Monthly Percentage of Samples Meeting the Turbidity Limits		
				99.97%	99.9%	
* Turbidity is a measure of the cloudiness of the water, and is monitored as an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.						
Total Organic Carbon, %	Yes	NA	TT = % removal; or removal ratio	Percent (%) Removal	Removal Ratio	
				49 - 80 (35 - 50 required)	1.1 (RAA) 1.0 - 1.3	Naturally present in the environment.
INORGANIC CONTAMINANTS				Highest Result (Range of Results)	Highest Result	
Barium, ppm	Yes	2	2	Less than 0.10	0.0145	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride, ppm	Yes	4	4	0.080 (ND - 0.080)	ND	Erosion of natural deposits.
Nickel, ppb	NA	NA	NA	2.39 (ND - 2.39)	ND	Erosion of natural deposits.
Nitrate, ppm	Yes	10	10	3.26 (ND - 3.26)	0.351	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium, ppb	Yes	50	50	Less than 2	ND	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.

**WAIVER INFORMATION**

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. NJDWSC was granted a monitoring waiver for synthetic organic chemicals for the 2017-2019 monitoring period by NJDEP. PVWC received a monitoring waiver for all of the synthetic organic contaminants except for the contaminant Di(2-Ethylhexyl)Phthalate for the 2017-2019 monitoring period.

**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 NJDWSC system (PWS ID 1613001) can be obtained by accessing NJDEP's source water assessment web site at <http://www.nj.gov/dep/watersupply/swap/index.html> or by contacting NJDEP's Bureau of Safe Drinking Water at 609-292-5550. 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	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radionuclides	Radon	Disinfection Byproduct Precursors
PVWC 4 Surface Water	4-High	4-High	1-Medium, 3-Low	4-Medium	4-High	4-Low	4-Low	4-High
NJDWSC 5 Surface Water	5-High	5-High	2-Medium, 3-Low	5-Medium	5-High	5-Low	5-Low	5-High

## SECONDARY PARAMETERS – TREATMENT PLANT EFFLUENT

Contaminant	N.J. Recommended Upper Limit (RUL)	PVWC Little Falls WTP PWSID NJ1605002		NJDWSC Wanaque WTP PWSID NJ1613001	
		Range of Results	RUL Achieved	Result	RUL Achieved
ABS/LAS, ppb	500	ND - 150	Yes	ND	Yes
Alkalinity, ppm	NA	40 - 70	NA	38	NA
Aluminum, ppb	200	ND - 39	Yes	60	Yes
Chloride, ppm	250	65 - 194	Yes	71	Yes
Color, CU	10	ND	Yes	2	Yes
Corrosivity	Non-Corrosive	Non-Corrosive	Yes	Non-Corrosive	Yes
Hardness (as CaCO <sub>3</sub> ), ppm	250	92 - 160	Yes	52	Yes
Hardness (as CaCO <sub>3</sub> ), grains/gallon	15	5 - 9	Yes	3	Yes
Iron, ppb	300	Less than 100	Yes	12	Yes
Manganese, ppb	50	Less than 50	Yes	2	Yes
Odor, TON	3	5 - 10	No	ND	Yes
pH	6.5 to 8.5 (optimum range)	7.7 - 8.4	Yes	8.0	Yes
Sodium, ppm	50	48 - 162	No*	40	Yes
Sulfate, ppm	250	42 - 68	Yes	8	Yes
Total Dissolved Solids, ppm	500	246 - 498	Yes	177	Yes
Zinc, ppb	5,000	Less than 50	Yes	16	Yes

### \* PVWC FINISHED WATER EXCEEDS SODIUM RUL

PVWC's finished water was above New Jersey's Recommended Upper Limit (RUL) of 50 ppm for sodium in 2018. 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. If you have any concerns please contact your health care provider.

### ADDITIONAL PVWC TREATMENT PLANT MONITORING RESULTS

Detected Contaminants, ppb	Little Falls WTP Effluent Range of Results	
Chlorate	(102 - 475)	<p>Test results presented in this table were collected in 2018 as part of a study to determine the general occurrence of these contaminants. PVWC continues to participate in, and support these types of regulatory and research efforts to maintain a position of leadership in drinking water supply.</p> <p>There are currently no EPA drinking water standards in effect for these contaminants although EPA has established health advisory levels for some of these to provide an estimate of acceptable drinking water levels based on health effects information.</p> <p>EPA has published Health Advisory levels for Perfluorooctanoic acid, (PFOA) and Perfluorooctanesulfonic acid, (PFOS), of 0.070 parts per billion (ppb) combined.</p> <p><b>The results observed in 2018 were below EPA established health advisory levels.</b></p> <p>NJDEP adopted a maximum contaminant level (MCL) of 0.013 parts per billion (ppb) for Perfluorononanoic acid (PFNA) in September 2018 and is considering a maximum contaminant level of 0.014 ppb for PFOA.</p>
Perfluorobutanesulfonic acid (PFBS)	(0.0020 - 0.0051)	
Perfluoroheptanoic acid (PFHpA)	(0.0021 - 0.0049)	
Perfluorohexanesulfonic acid (PFHxS)	(0.0025 - 0.0053)	
Perfluorohexanoic acid (PFHxA)	(0.0042 - 0.012)	
Perfluorononanoic acid (PFNA)	(ND – 0.0021)	
Perfluorooctanesulfonic acid (PFOS)	(0.0049 - 0.012)	
Perfluorooctanoic acid (PFOA)	(0.0072 - 0.016)	

Health advisory levels are non-enforceable and non-regulatory and provide technical information to state agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

## **DEFINITIONS of TERMS and ACRONYMS**

**ABS/LAS:** Alkylbenzene Sulfonate and Linear Alkylbenzene Sulfonate (surfactants)

**AL: Action Level;** the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**CU:** Color unit

**Disinfection By-product Precursors:** A common source is naturally-occurring organic material in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (DBP precursors) present in surface water.

**EPA:** United States Environmental Protection Agency

**MCL: Maximum Contaminant Level;** 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.

**MCLG: Maximum Contaminant Level Goal;** 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.

**Microbial Contaminants/Pathogens:** Disease-causing organisms such as bacteria, protozoa, and viruses, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Common sources are animal and human fecal wastes. These contaminants may be present in source water.

**MRDL: Maximum Residual Disinfectant Level;** 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.

**MRDLG: Maximum Residual Disinfectant Level Goal;** the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

**NA:** Not applicable

**ND:** Not detected above the minimum reporting level.

**NJDEP:** New Jersey Department of Environmental Protection

**NJDWSC:** North Jersey District Water Supply Commission

**NTU:** Nephelometric Turbidity Unit

**Nutrients:** Compounds, minerals and elements that aid growth, which can be either naturally occurring or man-made. Examples include nitrogen and phosphorus.

**ppb:** parts per billion (approximately equal to micrograms per liter)

**ppm:** parts per million (approximately equal to milligrams per liter)

**PWS ID:** Public Water System Identification

**PVWC:** Passaic Valley Water Commission

**RAA:** Running Annual Average

**Radon:** Colorless, odorless, cancer-causing gas that occurs naturally in the environment.

**RUL:** Recommended Upper Limit; the highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.

**RUL Achieved:** A "YES" entry indicates the State-recommended upper limit was not exceeded. A "NO" entry indicates the State-recommended upper limit was exceeded.

**TON:** Threshold Odor Number

**TT: Treatment Technique;** a required process intended to reduce the level of a contaminant in drinking water.

**WTP:** Water Treatment Plant

## **ADDITIONAL INFORMATIONAL RESOURCES**

EPA Drinking Water website: [www.epa.gov/safewater](http://www.epa.gov/safewater)

NJDEP Water Supply website: [www.nj.gov/dep/watersupply](http://www.nj.gov/dep/watersupply)

American Water Works Association (AWWA) website: [www.awwa.org](http://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](http://www.njawwa.org)

**Table 6-3. CCR Definitions for the RTCR**

**Level 1 Assessment:**

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Citation – 40 CFR 141.153 (c)(4)(i)

**Table 6-4. CCR Health Effects for the RTCR:**

**Level 1 or 2 Assessment Not Due to E. coli MCL Violation**

**CCR Language**

Coliforms are bacteria that are naturally found in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during the assessments.

During the past year we were required to conduct (1) Level 1 Assessment.

1 Level One Assessment was completed. In addition we were required to take 1 corrective action and we completed 1 corrective action.

Citation – 40 CFR 141.153. (h)(7)(i)(B)

**Totowa Boro Water Dept. NJ 1612001 2018 Water Quality Data**

				DISTRIBUTION SYSTEM RESULTS	
PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	TYPICAL SOURCE	
<b>MICROBIOLOGICAL CONTAMINANTS</b>				<b>Highest Monthly Result</b>	
Total Coliform Bacteria, %	N/A	N/A	5% of monthly samples are positive	0%	Naturally present in the environment.
<b>DISINFECTION BYPRODUCTS</b>				<b>Highest LRAA and Range of Results</b>	
Haloacetic Acids (HAA5), ppb	Yes	N/A	60	.035MG/L .003MG/L--0.25MG/L	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM), ppb	Yes	N/A	80	.056MG/L .035MG/L--.052MG/L	By-product of drinking water disinfection.
<b>DISINFECTANTS</b>		<b>MRDLG</b>	<b>MRDL</b>	<b>Highest RAA and Range of Results</b>	
Chlorine,ppm	Yes	4	4	1.20MG/L 0.701MG/L--1.00MG/L	Water additive used to control microbes.
<b>COPPER AND LEAD</b>				<b>90TH PERCENTILE</b>	
Lead (ppm)	Yes	N/A	0.0 MG/L	0.002 MG/L	Corrosion of household plumbing systems
Copper (ppm)	Yes	N/A	1.3 MG/L	0.114 MG/L	Corrosion of household plumbing systems