

**CITY OF GARFIELD
WATER SYSTEM
CONSUMER CONFIDENCE REPORT – 2021**

(Issued: Summer 2022)

This contains important information about the water in your community. Translate or speak to someone who understands it well.

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

La relazione contiene importanti informazioni su la qualita del acqua de la Comunita. Tradurlo o parfame con un amico che lo comprenda.

Sprawozdanie zawiera wazne informacje na temat jakosci wody w Twojej miejscowosci. Popros kogos o przetiumaczenie go lub porozmawiaj z osoba ktora je dobrze rozumie.

Dear Consumer:

During 2021, the City of Garfield Water Department conducted tests on water samples for over 132 contaminants that might be found in the water. These tests included items ranging from taste and odor, to bacteriological, radiological and chemical constituents. The United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP) sets health and safety standards for water quality.

This annual Consumer Confidence Report, required by the Safe Drinking Water Act (SDWA), provides additional information on our sources of supply and the quality of the water that we deliver. For more information on this report or about the next opportunity for public participation in decisions concerning drinking water, please contact:

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The City of Garfield does not have regularly scheduled meetings regarding the Garfield Water Department. All meetings of the Mayor and Council are advertised in advance in the legal section of the local newspaper. The Garfield Water Department will notify consumers as required by the NJDEP if water quality fails to meet the standards.

General Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacterial, which may come from wastewater 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 stormwater runoff, and residential uses.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, industrial or domestic wastewater discharges, oil and gas projection, mining or farming.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agriculture and septic systems.
- Radioactive contaminants, which can be naturally occurring, or can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of a contaminant does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline (800) 426-4791).

Sources of Supply

The NJDEP permits the Garfield Water Department to operate fourteen (14) production wells, of which thirteen are active. Eleven (11) are located at the Garfield Waterworks Well Field. The wells are sunk deep below the ground approximately 250 feet - into an underground source of water. The Garfield Waterworks Well Field is located at 219 Boulevard in Elmwood Park, Bergen County, New Jersey.

The Garfield Water Department supplements its well water supply with treated water purchased in bulk from the Passaic Valley Water Commission (PVWC). Based upon 2021 data, approximately **78.52%** of the city's water demand was supplied by the Garfield Wells. The primary source of water for PVWC is the Pompton and Passaic Rivers as well as water supplied by the North Jersey District Water Supply Commission (NJDWSC).

Garfield's well water and water purchased from PVWC are blended at the Belmont Hill Tank. The north end of the City of Garfield receives mostly well water, the south end receives mostly PVWC water, and the area in between receives mostly blended water.

Source Water Assessment Program (SWAP)

In 2004, the NJDEP completed and issued a source Water Assessment Report and summary for this public water system, which is available at www.state.nj.us/dep/swap/ or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The NJDEP source water assessment performed on our well sources determined the following:

Source	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclides			Radon			Disinfection Byproducts Precursors			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Wells ¹		12	6	11	7			11	7	18			18			9	9		18				18		

DEP utilized the following ratings: high (H), medium (M), or low (L) for each contaminant category.

¹ Eighteen (18) wells were reviewed for each contaminant category.

If a system is rated highly susceptible for a contamination category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for the contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

If you have any questions regarding the Source Water Assessment Report or summary, please contact the Bureau of Safe Drinking Water at swap@dep.state.nj.us or 609-292-5550.

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information, go to

<http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

Water System Capital Improvements

The City of Garfield is dedicated to supplying its residents with a reliable water system with the highest quality water. The City of Garfield has added capacity of Garfield's own treated water greatly reducing our dependency in purchasing water from PVWC by reactivating Wells 1A and 8C with treatment for VOC's, PFOS and PFOA. That work has progressed into the year 2022 with Well 2 being slated for redrilling and activation in association with the treatment plant at the existing Well 1A at Columbus Park. **Last year (2021) Garfield started a meter replacement program with the newest "state of the art" meter and meter reading program which we are hoping to have completed sometime this year.** We are also in the process of upgrading the Elmwood Park Wellfield to totally eliminate PFOS and PFOA at that supply.

Treatment

The wells and the area around the wells are inspected regularly to ensure that no above ground pollution sources are present in these areas. Water from all wells is treated by chlorination for disinfection and aeration (where needed) by an air stripper or an activated carbon vessels to remove volatile organic compounds. Water treatment at PVWC includes pretreatment, sedimentation, filtration and disinfection.

The City of Garfield and PVWC Water Quality Tables found within this report list all the drinking water contaminants that were detected during calendar year 2021. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from January 1 through December 31, 2021. The NJDEP requires the City of Garfield to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Health/Educational Information

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 infections by cryptosporidium and other microbial contaminants are available from the EPA Safe Drinking Water Hotline at 800-426-4791.

Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Others

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

CITY OF GARFIELD WATER QUALITY TABLE

PRIMARY STANDARDS
(Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Garfield Result</u>	<u>Range of Results</u>	<u>Meets Std.</u>	<u>Likely Source of Contaminant</u>
<u>Inorganic Compounds</u>						
Lead ¹ (ppb)	-0-	AL=15 ²	3.3 ³	--	Yes	Household Plumbing.
Copper ¹ (ppm)	AL=1.3	AL=1.3 ²	0.176 ³	--	Yes	Household Plumbing.
Nitrates (ppm)	10	10		3.01 – 3.92	Yes	Natural Mineral.
Iron ⁴ (ppm)	-0-	0.3	< 0.10	--	Yes	Natural and Plumbing
Manganese ⁴ (ppm)	-0-	0.05	<0.05	--	Yes	Natural Mineral
<u>Radionuclides</u> ⁵						
Gross Alpha Particles (pCi/l)	-0-	15		<3 - 10.1 ⁶	Yes	Erosion of natural deposits.
Radium-228 (pCi/l)	-0-	5		<1.0 -1.16 ⁶	Yes	Erosion of natural deposits.
<u>Microbiologicals</u>						
Total Coliforms ⁷ (# of detects per month)	-0-	1	See #7 Below	1/year	Yes	Naturally present in the environment.
<u>Organic Compounds</u>						
Total Haloacetic Acids Five ⁸ (HAA5) (ppb)	NS	60		3.2 –98.1	Yes	By-product of drinking water disinfection.
Total Trihalomethanes ⁸ (TTHM) (ppb)	NS	80		2.3 –33.92	Yes	By-product of drinking water disinfection.

Footnotes

¹ The Garfield Water Department collected 33 water samples during 2021 from residents previously selected in the distribution system. These samples were analyzed to determine the concentration of lead and copper. This data is used to determine if the water is corrosive, and it was found that it is not corrosive. **Resampling will take place during the 2024 calendar year.**

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. The Garfield Water Department is responsible for providing high quality water, but cannot control the variety of materials used in plumbing components. When water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 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 is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

However, for those served by a lead service line, flushing times may vary based on the length of the service line and plumbing configuration in your home. If your home is set back further from the street a longer flushing time may be needed. To conserve water, other household water usage activities such as showering, washing clothes, and running the dishwasher are effective methods of flushing out water from the service line..

² This is the action level for lead and copper.

³ This is the 90th percentile level.

⁴ Iron & Manganese are not primary contaminants.

⁵ Radionuclides compliance is based on running annual average. The Garfield Water Department is permitted to test for Radium 228 every 6 years and Gross Alpha Particles every 9 years for compliance. These are the latest results.

⁶ 2014- 2020 sample results.

⁷ **363 samples were collected from the distribution system and thirteen from raw water at the wells during 2021. Garfield had one samples that resulted in a positive level of total coliform bacteria and NONE for e-coli. No more than 1 sample per month may test positive for total coliform. In April of 2022 we had one positive routine sample for total coliform. We took three repeat samples from the distribution system and thirteen raw water from the wells and all tested negative for total coliform and e-coli.**

⁸ Total Haloacetic Acids Five (HAA5) and Total Trihalomethanes (TTHM) compliance are based on highest running annual average.

CITY OF GARFIELD WATER QUALITY TABLE (continued)

PRIMARY STANDARDS
(Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Well 8C Range³</u>	<u>Well 1A Range³</u>	<u>EP Wellfield Range³</u>	<u>Meets Std.</u>	<u>Likely Source of Contaminant</u>
<u>Volatile Organic Compounds¹</u>							
1,2-Dichloroethane (ppb)	NS	2	<0.5 – 1.15 ³	<0.5-0.5	<0.5	Yes	Discharge from industrial chemical factories.
Cis-1,2-Dichloroethene (ppb)	NS	70	<0.5-1.40 ³	0.5-0.59	0.97-2.28	Yes	Discharge from industrial chemical factories.
Methyl-t-butyl Ether (MTBE) (ppb)	NS	70	<0.5	<0.5	<0.5	Yes	Leaking underground gasoline & fuel oil tanks, spills and marine engine emissions.
Methylene Chloride (ppb)	NS	3	<0.5	<0.5	<0.5	Yes	Discharge from industrial chemical factories.
Dibromochloromethane (ppb)	NS	NS	<0.5	<0.5	<0.5	Yes	By-product of drinking water disinfection.
Tetrachlorethene (ppb)	1	1	<0.5	<0.5	<0.5 – 0.71	Yes	Discharge from industrial chemical factories.
Perfluorooctanesulfonic Acid - PFOS 2021 MCL is 13.0 ng/L RAA	NS	13.0 ng/L	1.05–1.86 ³	1.82-3.67 ³	19.1-30.0 ³	See Footnote ⁴	PFAS substances are used in industrial and consumer products for their surfactant properties and durability. Products such as PFTE, textile coatings, firefighting foams, metal plating processing, semi-conductors, paper and packaging additives, cleaning products and pesticides.
Perfluoro-n-octanoic Acid - PFOA 2021 MCL is 14.0 ng/L RAA	NS	14.0 ng/L	1.76-6.55 ³	1.82-17.2 ³	31.0-34.1 ³	See Footnote ⁴	
Perfluoro-n-nonanoic Acid - PFNA 2021 MCL is 13.0 ng/L RAA	NS	13.0 ng/L	0.95-1.86 ³	1.17-1.92 ³	1.77-1.97 ³	See Footnote ⁴	

Footnotes

- ¹ Quarterly samples of treated water were collected and tested for 84 volatile organic compounds (VOCs).
- ² The Garfield Water System has been exempted from the requirement to sample for Synthetic Organic Compounds, and Asbestos.
- ³ This is the range of the results. The higher number is the highest detected level. State Regulations are the Running Annual Average.
- ⁴ The new standard started on 1/1/2021. Wells 1A and 8C meet the new Regulations. Elmwood Park Pumping Station is in the process of being upgraded to meet the new standard. Quarterly public notifications will continue until it comes into compliance.

2019 UNREGULATED CONTAMINANTS FOR WHICH EPA REQUIRED MONITORING

Contaminant	Garfield (Range of Results)	
Anatoxin-a	<0.03 ug/L	Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The next round of unregulated Contaminant test will be in the year 2023.
CylnDrospermopsin	<0.09 ug/L	
Total Microcystins	ND - 0.063 ug/L	
BromoChlorAcetic Acid	0.6 - 4.0 ug/L	
BromoDiChloroAcetic Acid	<0.5 - 3.5 ug/L	
DiBromoAcedic Acid	1.1 - 1.3 ug/L	
ChloroDiBromoAcedic Acid	0.6 - 1.2 ug/L	
TriBromoAcedic Acid	<2.0	
Trichloroacetic Acid	ND - 12.1 ug/L	
Total Microcystins	ND - 0.063 ug/L	

CITY OF GARFIELD
SECONDARY STANDARDS¹
(Related to the aesthetic quality of drinking water)

<u>Substance Name</u>	<u>Recommended Upper Limit</u>	<u>Well 8C¹ Result</u>	<u>Elmwood Park¹ Result</u>	<u>Well 1A Result</u>	<u>Meets Standard</u>
ABS/LAS	0.5	0.08	0.08	0.07	Yes
Alkalinity (ppm)	NS	153	170	212	NA
Aluminum (ppm)	0.2	2.92	0.52	1.13	Yes
Chloride (ppm)	250	142.3	155.6	205.3	Yes
Color (ppm)	10	<5	<5	<5	Yes
Copper (ppm)	1.3	.0113	.0168	.0469	Yes
Corrosivity ²	+/-1.0	0.01	0.53	-0.14	Yes
Flouride (ppm)	1.2	<0.05	<0.05	<0.05	Yes
Hardness (ppm) ³	50-250	360	362	424	No³
Iron (ppm)	0.3	<0.10	<0.10	<0.10	Yes
Manganese (ppm)	0.05	<0.5	0.65	<0.5	Yes
pH (units)	6.5-8.5	7.6	8.00	7.2	Yes
Silver (ppm)	0.1	<0.5	<0.5	<0.5	Yes
Sodium (ppm)	50	38.03	46.41	66.57	NO
Sulfate (ppm)	250	69.2	62.6	43.2	Yes
Total Dissolved Solids (ppm) ⁴	500	534	549	652	No
Zinc (ppm)	5.0	0.0088	0.0019	0.0144	Yes

Footnotes

- ¹ Testing for Secondary Standards was conducted in 2020. The City of Garfield is required to routinely sample for Secondary Standards every three (3) years. Although not regulated, these items act as an indicator of the aesthetic quality of the available drinking water.
- ² See also section on inorganics and lead and copper testing in Primary Standards above.
- ³ The range of 50-250 mg/l is the recommended range for hardness. Hardness will cause scaling of pipe and is not a health concern.
- ⁴ An elevated total dissolved solids (TDS) concentration or Hardness is not a health hazard. The TDS concentration is a secondary drinking standard and therefore is regulated because it is more of an aesthetic rather than a health hazard.

Additional Monitoring Results (City of Garfield)

The City of Garfield assists the Garfield Board of Education, the Garfield Recreation Center and the Garfield YMCA with the initial required Lead and Copper testing by the NJDEP and the County Health Department. They currently conduct their own sampling and those records and lab analysis are maintained by at the respective offices.

The following three pages have been provided to Garfield by the Passaic Valley Water Commission and represent the portion of our water that is purchased in bulk from them.

PASSAIC VALLEY WATER COMMISSION (PVWC) PWS ID NJ1605002 - 2020 WATER QUALITY DATA

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 list the following susceptibility ratings for a variety of contaminants that may be present in source waters:

Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at <http://www.nj.gov/dep/watersupply/swap/index.html>, or by contacting the NJDEP, 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 listed in the table (above/below) the susceptibility ratings for a variety of contaminants that may be present in source waters

Source Water Assessment and 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
Newark (1 Intake)	1-High	1-Low	1-Low	1-Low	1-High	1-Low	1-Low	1-High

A Note to People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 reduce the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

2021 Water Quality Results -- Table of Detected Contaminants

System Name PWSID: NJ

Regulated Contaminant (units)	Goal (MCLG)	Highest Level Allowed (MCL)	PVWC Little Falls-WTP PWSID: NJ1605002	NJDWSC Wanaque-WTP PWSID: NJ1613001	Newark Water Pequannock-WTP PWSID: NJ0714001	Source of Substance	Violation
Treated Drinking Water at Treatment Plant							
Inorganic Contaminants							
Barium (ppm)	2	2	0.023 (0.014-0.023)	0.0095	0.0067	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Nickel (ppb)	N/A	N/A	2.8 (1.48-2.8)			Erosion of Natural Deposits	No
Nitrate (ppm)	10	10	1.06 (0.51-1.68)	0.26	0.16	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	No
Radiological Contaminants							
Radium (pCi/L)	0	5	Not Detected (2014 Data)	Not Detected (2014 Data)	1.5 (2017 Data)	Erosion of Natural Deposits	No
Perfluorinated Compounds							
Perfluorooctanesulfonic acid [PFOS] (ppt)	0	13*	4.86 highest running annual average (3.4-6.6)	2.84**	<2.0	Metal plating and finishing, discharge from industrial facilities, aqueous film-forming (firefighting) foam	No
Perfluorooctanoic acid [PFOA] (ppt)	0	14*	7.9 highest running annual average (5.5-11)	3.6**	2.9	Metal plating and finishing, discharge from industrial facilities, aqueous film-forming (firefighting) foam	No
<small>*MCL created by the state of New Jersey. Currently there is no Federal MCL for perfluorinated compounds. **These values taken from NJ Drinking Water Watch.</small>							
Disinfection ByProducts (DBPs)							
Bromate (ppm)	N/A	10	0.94 highest running annual average (<5.0-16.17)			By-product of drinking water disinfection	No
Treatment Technique (TT) Monitoring							
Turbidity (NTU)	N/A	TT = 1	Highest Level Detected = 0.275 (0.029-0.275)	Highest Level Detected = 0.5 (0.01-0.5)	Highest Level Detected = 0.94 (0.05-0.94)	Soil run-off	No
	N/A	TT = % of samples <0.3 NTU (min 95%)	Lowest Monthly % of Samples meeting Turbidity Limits = 100%	Lowest Monthly % of Samples meeting Turbidity Limits = 99.99%	Lowest Monthly % of Samples meeting Turbidity Limits = 99.5%		
<small>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.</small>							
Total Organic Carbon (%)	N/A	TT = % Removal or Removal Ratio	51-82 (Achieved) Required: 25-50	Running Annual Average (RAA): 1.1 Removal Ratio Range: 33-48 Removal Ratio Range: 0.9-1.4	Running Annual Average (RAA): 2.47 Removal Ratio Range: 1.72-1.99	Naturally present in the environment	No

2021 Water Quality Results - Table of Detected Secondary Contaminants

System Name PWSID: NJ

Contaminant (units)	NJ Recommended Upper Limit (RUL)	PVWC Little Falls-WTP PWSID: NJ1605002		NJDWSC Wanaque-WTP PWSID: NJ1613001		Newark Water Pequannock-WTP PWSID: NJ0714001	
		Range of Results	RUL Achieved	Result	RUL Achieved	Result	RUL Achieved
Alkylbenzene Sulfonate [ABS]/ Linear Alkylbenzene Sulfonate [LAS] (ppb)	500	25-90	Yes	<50	Yes		
Alkalinity (ppm)	N/A	45-67.5	N/A	49.6	N/A	27.1	N/A
Aluminum (ppb)	200	15.1-43.7	Yes	38.1	Yes	36	Yes
Chloride (ppm)	250	89.71-100.7	Yes	51.2	Yes	34.8	Yes
Color (CU)	<10	<5	Yes	2	Yes	2	Yes
Copper (ppm)	<1	0.68-1.06	No	0.013	Yes		
Corrosivity (ppm)	non-corrosive	-0.41-0.3	No				
Hardness, CaCO ₃ (ppm)	250	86-148	Yes	52	Yes	43.6	Yes
Iron (ppm)	0.3	<0.1	Yes	<0.2	Yes	0.007	Yes
Manganese (ppb)	50	2.69-17.97	Yes	3.7	Yes	60	No
Odor (Threshold Odor Number)	3	1-20	No	<1.00	Yes	<1	Yes
pH	6.5 to 8.5 (optimum range)	8.03-8.58	No	7.98	Yes	7.45	Yes
Sodium (ppm)	50	42.33-96.5	No*	29.4	Yes	22	Yes
Sulfate (ppm)	250	42.1-55.6	Yes	7.78	Yes	13.3	Yes
Total Dissolved Solids (ppm)	500	279.5-354.5	Yes	170	Yes	103	Yes
Zinc (ppb)	5000	1.04-5.06	Yes	<10	Yes	<200	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.

ADDITIONAL INFORMATIONAL RESOURCES

EPA Drinking Water website: www.epa.gov/safewater
4791 NJDEP Water Supply website: www.nj.gov/dep/watersupply
292-5550 American Water Works Association (AWWA) website: www.awwa.org
www.njawwa.org

EPA Safe Drinking Water Hotline: 800-426-
NJDEP Bureau of Safe Drinking Water: 609-
AWWA New Jersey Section website:

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

NJDEP Water Supply website: www.nj.gov/dep/watersupply

EPA Safe Drinking Water Hotline: 800-426-4791

NJDEP Bureau of Safe Drinking Water: 609-292-5550

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

1. The City of Garfield had one sample test positive for Total Coliform and negative for E-Coli during September of 2021. Follow-up testing of the original sample site, one upstream, one downstream and all active wells showed no positive samples for either Total Coliform or E-Coli. No further action was required.

2. The City of Garfield had one sample test positive for Total Coliform and negative for E-Coli during April of 2022. Follow-up testing of the original sample site, one upstream, one downstream and all active wells showed no positive samples for either Total Coliform or E-Coli. No further action was required.

3. The City of Garfield received Quarterly Non- Compliance Letters starting in the second quarter of 2021 and continued quarterly into 2022 for PFOA and PFOS at the Elmwood Park Pump Station (TP003015). Below are the results for the year 2021 at that site.

<u>Contaminant</u>	<u>Max</u>	<u>TP003015 Range</u>
Perfluorooctanesulfonic Acid – PFOS 2021 MCL is 13.0 ng/L RAA	35.30	19.1-30.0
Perfluoro-n-octanoic Acid – PFOA 2021 MCL is 14.0 ng/L RAA	37.30	31.0-34.13

Perfluorooctanesulfonic acid (PFOS) is a member of the group of chemicals called per- and polyfluoroalkyl substances (PFAS), that are man-made and used in industrial and commercial applications. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS has also been used in aqueous film-forming foams for firefighting and training, and it is found in consumer products such as stain-resistant coatings for upholstery and carpets, water-resistant outdoor clothing, and greaseproof food packaging. Major sources of PFOS in drinking water include discharge from industrial facilities where it was made or used, and the release of aqueous film-forming foam. Although the use of PFOS has decreased substantially, contamination is expected to continue indefinitely because it is extremely persistent in the environment and is soluble and mobile in water.

Perfluorooctanoic acid (PFOA) is a member of the group of chemicals called per- and polyfluoroalkyl substances (PFAS), used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses, based on its resistance to harsh chemicals and high temperatures. PFOA has also been used in aqueous film-forming foams for firefighting and training, and it is found in consumer products such as stain-resistant coatings for upholstery and carpets, water-resistant outdoor clothing, and greaseproof food packaging. Major sources of PFOA in drinking water include discharge from industrial facilities where it was made or used and the release of aqueous film-forming foam. Although the use of PFOA has decreased substantially, contamination is expected to continue indefinitely because it is extremely persistent in the environment and is soluble and mobile in water.

What does this mean?

**People who drink water containing PFOS in excess of the MCL over time could experience problems with their immune system, kidney, liver, or endocrine system. For females, drinking water containing PFOS in excess of the MCL over time may cause developmental effects and problems with the immune system, liver, or endocrine system in a fetus and/or an infant. Some of these developmental effects may persist through childhood.*

**People who drink water containing PFOA in excess of the MCL over time could experience problems with their blood serum cholesterol levels, liver, kidney, immune system, or, in males, the reproductive system. Drinking water containing PFOA in excess of the MCL over time may also increase the risk of testicular and kidney cancer. For females, drinking water containing PFOA in excess of the MCL over time may cause developmental delays in a fetus and/or an infant. Some of these developmental effects may persist through childhood.*

System: Garfield Water Department - PWSID No. 0221001 - Date 6/13/2022