Verona Township Water Department

Quality on Tap Report Annual Drinking Water Quality Report
Township of Verona Water System
For the Year 2022, Results from the Year 2021

PWSID # 0720001

Our Mission Continues

We are once again pleased to present to you this year's Annual Drinking Water Quality Report covering all testing performed between January 1 and December 31, 2021. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water. For more information about this report and other questions regarding your drinking water, please contact Jeff Sonntag at the Verona Water Department (973) 857-4843 or at jsonntag@veronanj.org. You may also call the U.S. EPA Bureau of Safe Drinking Water Hotline at (800) 426-4791 or the New Jersey Department of Environmental Protection (NJDEP), Bureau of Safe Drinking Water, at (609)292-5550.

What Is the Source of Our Drinking Water?

Our water is derived from two different water supplies: groundwater wells that the Township of Verona owns and operates, and treated surface water purchased from the Passaic Valley Water Commission (PVWC). The well water is withdrawn from the Feltville aquifer via two deep rock wells located in Verona. The water from PVWC comes from the Wanaque Reservoir, owned and operated by the North Jersey District Water Supply Commission (NJDWSC) and located in Wanaque, New Jersey. PVWC can also provide water from their Little Falls Treatment plant located in Totowa, New Jersey, that utilizes water from the Passaic River and/or the Pompton River. All water sources are treated to produce safe drinking water that satisfies all state and federal standards. In addition to these water supplies, we have emergency water connections with both Essex Fells and the New Jersey American Water Company, which are capable of providing drinking water to Verona in the event of an interruption in our normal water services.

Source Water Assessment

Source Water Assessments (SWA) were completed at the end of December 2004 for all community water systems. Water systems are required (40 C.F.R. 141.153(b)(2)) to notify their customers how they can obtain the information in these reports, and to provide a summary of the results for the system's source(s). Federal regulations also recommend the systems provide a summary of potential sources of contamination. 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. This document is available from the website at http://www.nj.gov/dep/watersupply/swap/index.html. A list of the potential contaminant sources utilized in the report can be obtained from the SWA Report available online at watersupply@dep.nj.gov. Assessments have been completed for the PVWC and NJDWSC systems. These reports are 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. Each report lists the susceptibility ratings for eight contaminate categories, ranging from LOW to HIGH.

Educational Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 (1-800-426-4791).

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 bacteria, which may come from sewage 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, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum

production, and can also come from gas stations, urban stormwater runoff, and septic systems.

- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

- Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

- Nitrate in Drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

    - Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

    - Arsenic –your drinking water meets EPA's standard for arsenic. Only a small amount of Arsenic was detected in your system. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems (40 CFR 141.154(b)(1)). Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer (40 CFR 141.154(f) and 141.153(d)(6)).

    - PFOA – Perfluorooctanoic Acid, your water detected levels over the limit for PFOA, compliance is determined by a running annual average. The typical or likely source per NJAC 7:10-5.2(b)4 stated in table below.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount, of certain contaminants in water provided by public water systems. Food and Drug Administration 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 contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects

can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES							
				Township of Verona Water Department			
SUBSTANCE (Unit of Measure)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOWHIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2017	15	0	5.812	5.057 – 6.566	No	Erosion of natural deposits
Arsenic (ppb)	2020	5	0	0.0019	0.0015 – 0.0021	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste
Barium (ppm)	2020	2	2	0.312	0.268 – 0.356	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	0.69	0.10 – 1.84	No	Water additive used to control microbes
Chromium (ppb)	2020	100	100	0.002	<0.0005 – 0.0034	No	Discharge from steel and pulp mills; Erosion of natural deposits

Fluoride (ppm)	2020	4	4	ND <0.2	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2021	60	NA	26	20 – 29	No	By-product of drinking water disinfection
Nickel (ppb)	2020	100	NA	0.0046	0.00450.0047	No	Pollution from mining and refining operations; Natural occurrence in soil
Lead (ppb)	2021	15	15	< 2	0	No	Corrosion of household plumbing systems, erosion of natural deposits

Copper (ppb)	2021	1.3	1.3	0.160	0.082 - 0.230	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Selenium (ppb)	2020	50	50	<0.006	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Nitrate (ppm)	2021	10	10	1.8	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2021	80	NA	58	54 – 61	No	By-product of drinking water disinfection

PFNA (ng/l) Perfluorononanoic Acid	2021	13	6.5	<2	NA	No	These chemicals were used in the production of non-stick, stain repellent and chemically inert coatings. Compounds were also used to make firefighting foam, stain-resistant clothing, and food packaging.
PFOA (ng/l) Perfluorooctanoic Acid	2021	14	7	28	20.4 – 35.1	***Yes**	These chemicals were used in the production of non-stick, stain repellent and chemically inert coatings. Compounds were also used to make firefighting foam, stain-resistant clothing, and food packaging.
PFOS(ng/l) Perfluorooctanesulfonic Acid	2021	13	6.5	10	7.61 – 13.9	No	These chemicals were used in the production of non-stick, stain repellent and chemically inert coatings. Compounds were also used to make
EDB & DBCP (ug/l)	2021	0.2	NA	< 0.008	< 0.007 – < 0.008	No	Synthetic organic compounds. DBCP was used primarily as soil fumigant for many crops like on soybeans, cotton, pineapples, and orchards.
VOCs	2021			<0.386	< 0.05 – < 0.386	No	VOC's include the burning of fuels such as gas, wood and kerosene and tobacco products. VOCs can also come from personal care products such as perfume and hair spray, cleaning agents, dry cleaning fluid, paints, lacquers, varnishes, hobby supplies and from

							copying and printing machines.
1,2,3 Tri-chloropropane (ug/l)	2021	0.03	NA	<0.004	<0.004 – <0.00402	No	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards

UNREGULATED SUBSTANCES			
		Township of Verona Water Department	
SUBSTANCE (Unit of Measure)	**YEAR SAMPLED**	**AMOUNT DETECTED**	**RANGE LOW-HIGH**
Bromoform (ppb)	2021	0.72	<0.161-2

SECONDARY SUBSTANCES							
				Township of Verona Water Department			
SUBSTANCE (Unit of Measure)	**YEAR SAMPLED**	**RUL**	**MCLG [MRDLG]**	**AMOUNT DETECTED**	**RANGE LOWHIGH**	**VIOLATION**	**TYPICAL SOURCE**
ABS/L.A.S. (ppm)	2017	500	NA	ND	NA	No	Common major components of synthetic detergents
Aluminum (ppb)	2020	200	NA	<0.01	NA	No	Erosion of natural deposits; Residual from some surface water treatment process
Chloride (ppm)	2020	250	NA	194	187-201	No	Runoff/ leaching from natural deposits

Color (units)	2020	10	NA	<2	NA	No	Natural occurring organic materials
Corrosivity (uits)	2020	Non-corrosive	NA	0.208	-0.107-0.308	No	Naturally or industrially influenced balance of hydrogen, carbon, and oxygen in the water; Affected by temperature and other factors
Hardness [as CaCO3][6] (ppm)	2020	250	NA	400	376-424	No	Naturally occurring
Iron (ppb)	2020	300	<0.2	ND	NA	***Yes**	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2020	50	<0.01	ND	NA	***Yes**	Leaching from natural deposits
Odor (TON)	2020	3	<1	ND	NA	No	Naturally occurring organic materials
pH (Units)	2020	6.5-8.5	NA	7.52	7.217.82	No	Naturally occurring
Sodium[7] (ppm)	2020	50	NA	40.4	29.9-50.9	No	Naturally occurring
Sulfate (ppm)	2020	250	NA	35.45	25.445.5	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2020	500	NA	618.5	609 - 628	No	Runoff/leaching from natural deposits
Zinc (ppm)	2020	5	NA	0.012	<0.01 – 0.0147	No	Runoff/leaching from natural deposits; Industrial wastes

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminate Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the EPA with data on the occurrence of contaminates suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining this information. If you would like more information on the U.S. EPA's Unregulated Contaminate Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

UCMR4		Township of Verona Water Department	
SUBSTANCE (Unit of Measure)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Germanium, Total (ppb)	2018	ND	NA
Manganese, Total (ppb)	2018	1.9	1.9
Total Microsystins (ppb)	2018	ND	NA
Semivolatiles (ppb)	2018	ND	NA
Anatoxin-a (ppb)	2018	ND	NA
Cylindrospermopsin (ppb)	2018	ND	NA
Butylated hydroxyanisole (BHA) (ppb)	2018	ND	NA
O-toluidine (ppb)	2018	ND	NA
Quinoline (ppb)	2018	ND	NA
2-Propen-1-ol (allyl Alcohol) (ppb)	2018	ND	NA
1-Butanol (ppb)	2018	ND	NA
2-Methoxyethanol (ppb)	2018	ND	NA
MonoChloroAcetic Acid (ppb)	2018	ND	NA
MonoBromoAcetic Acid (ppb)	2018	0.4	<0.3 – 0.4
DiChloroAcetic Acid (ppb)	2018	16.9	10.4 – 16.9
TriChloroAcetic Acid (ppb)	2018	16.6	12.2 – 16.6
BromoChloroAcetic Acid (ppb)	2018	3.8	2.4 – 3.8
BromoDiChloroAcetic Acid (ppb)	2018	3.3	2.7 – 3.3
DiBromoAcetic Acid (ppb)	2018	0.9	0.4 – 0.9
ChloroDiBromoAcetic Acid (ppb)	2018	0.9	0.4 – 0.9
TriBromoAcetic Acid (ppb)	2018	ND	NA
HAA5 Group (ppb)	2018	32.4	26.2 – 32.4

HAA6Br Group (ppb)	2018	9.3	5.9 – 9.3
HAA9 Group (ppb)	2018	39.1	31.7 – 39.1

Violation of Monitoring and/or Reporting Compliance Data

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards.

What does this mean?

We have learned through our monitoring and testing that some contaminants have been detected. As you can see by the tables above our system had one violation for exceeding their Maximum Contaminant Levels which you will see an explanation of below. The system also received several monitoring and paperwork violations. We are proud that the Verona Water Department drinking water meets or exceeds all Federal and State safety requirements.

Monitoring Violation # 2022-8965 – Iron-Manganese

During 1/01/2021 – 12/31/2021, we did not complete all monitoring or testing for Iron-Manganese, and therefore cannot be sure of the quality of your drinking water during that time. The system received a level Tier 3 monitoring violation. There is a Public Notice at the end of this report. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

NJ MCL Violation # 2021-7906 – Perfluoroctanoic Acid (PFOA)

During 4/01/2021 – 6/30/2021, The system received an MCL violation for PFOA (Perfluoroctanoic Acid). We routinely monitor for the presence of federal and state regulated drinking water contaminants. New Jersey adopted a standard, or maximum contaminant level (MCL), for PFOA in 2020 and monitoring began in 2021. The MCL for PFOA is 14 parts per trillion and is based on a running annual average (RAA), in which the four most recent quarters of monitoring data are averaged. On July 22, 2021, we received notice that the samples collected from the Fairview Avenue Well on 3/31/2021 and 6/30/2021 showed that our system exceeds the PFOA MCL. PFOA was found at 35.1 and 33.5 parts per trillion respectively which caused the RAA to exceed the MCL regardless of the next two (2) quarter results. In July 2021, the Township of Verona stopped using the Fairview Avenue Well and proceeded to purchase all drinking water for Verona residents from the Passaic Valley Water Commission, which does not exceed the MCL. The water system is currently working with the NJDEP, Township officials and water professionals to determine the best solution for Verona Water System. There is a copy of Public Notice that was issued at the end of this report. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Reporting Violation # 2022-7918 – Non-Submittal of Remedial Measures Report
During 10/27/2021 – 12/06/2021, the water system received a violation issued for not submitting the Remedial Measures Report as part of the PFOA violation on-time. The system has since provided the necessary information to bring it back into compliance.

Reporting Violation # 2022-7919 – Lead and Copper Rule
During 1/01/2021 – 06/30/2021, the water system received a violation issued in error for not submitting the required lead and copper samples. The reports were submitted on-time but had not been processed. The system is provided the necessary information to bring it back into compliance.

Reporting Violation # 2022-7927 – Non-Submittal of Remedial Measures Report
During 01/21/2022 – 03/18/2022, the water system received a violation issued for not submitting the revised Remedial Measures Report as part of the PFOA violation on-time. The system has since provided the necessary information to bring it back into compliance.

Lead in Home Plumbing

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 **Verona Water Department** 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 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*** 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 a service line.

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.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

We at **The Verona Township Water Department** work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

DEFINITIONS

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminate that, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Location Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

MCL (Maximum Contaminant Level): The "Maximum Allowed" (MCL) is 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 "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allows for a margin of safety.

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 contaminates.

MRDLG (Maximum Residual Disinfectant Level Goal: 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.

NA: Not Applicable

ND (Not Detected): Indicates that the substance was found by laboratory analysis.**NTU (Nephelometric Turbidity Units)** : Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is not noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

RUL (Recommended Upper Limit): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

TON (Threshold Odor Number): A measure of odor in water.

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

The following pages have been provided by The Passaic Valley Water Commission because Verona Water Department Water System purchases a portion of their water from them.

2021 monitoring period

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	Source of Substance	Violation
Treated Drinking Water at Treatment Plant						
Inorganic Contaminants						
Barium (ppm)	2	2	0.023 (0.014-0.023)	0.0095	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	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natual deposits	No
Perfluorinated Compounds						
Perfluorooctanesulfonic acid [PFOS] (ppt)	0	13*	4.86 *highest running annual average* (3.4-6.6)	2.84**	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**	Metal plating and finishing, discharge from industrial facilities, aqueous film-forming (firefighting) foam	No
**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.*						
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)	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%		
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	51-82 (Achieved) Required: 25-50	Running Annual Average (RAA): 1.1 % Removal Range: 33-48 Removal Ratio Range: 0.9-1.4	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	
		Range of Results	RUL Achieved	Result	RUL Achieved
Alkylenzene 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
Aluminum (ppb)	200	15.1-43.7	Yes	38.1	Yes
Chloride (ppm)	250	89.71-100.7	Yes	51.2	Yes
Color (CU)	<10	<5	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
Manganese (ppb)	50	2.69-17.97	Yes	3.7	Yes
Odor (Threshold Odor Number)	3	1-20	No	<1.00	Yes
pH	6.5 to 8.5 (optimum range)	8.03-8.58	No	7.98	Yes
Sodium (ppm)	50	42.33-96.5	No*	29.4	Yes
Sulfate (ppm)	250	42.1-55.6	Yes	7.78	Yes
Total Dissolved Solids (ppm)	500	279.5-354.5	Yes	170	Yes
Zinc (ppb)	5000	1.04-5.06	Yes	<10	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 aboue the recommended upper limit may be a concern to individuals on a sodium restricted diet.*

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 contaminats 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

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring and Reporting Requirements Not Met for Verona Water System – PWSID NJ07020001

We are required to report monitoring results of your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During monitoring period for the 01/01/2021 – 12/31/2021 for your water system we failed to monitor and report the Iron-Manganese required by the state.

Our system failed to notify the state drinking water program as required by the State of NJ within 24 hours. Although public health was not impacted, as our customers, you have a right to know what happened and what we did to correct the situation.

What should I do?

There is nothing you need to do at this time. You do not need to boil your water or take other actions.

What is being done?

While we did not notify the state as quickly as we should have, we have taken measures to make sure this does not happen in the future.

For more information, please contact Township Manager, Joe O D'Arco at (973) 857-4767 or townshipmanager@veronanj.org.

Please share this information with all the other people who drink this water, Especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this in a public place or distributing copies by hand or mail.

This notice is being sent to you by Verona Water Department. PWSID #: NJ0720001
Date distributed: Sent as part of the Verona Water Department CCR Report

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The Verona Water Department System had levels of

Perfluorooctanoic Acid (PFOA) Above A Drinking Water Standard

However, the drinking water you are currently receiving is provided by the Passaic Valley Water Commission and does not exceed the standard.

The Verona water system recently violated a New Jersey drinking water standard, and as our customers, you have a right to know what happened, what you should do, and what we have already done and are continuing to do to correct this situation.

We routinely monitor for the presence of federal and state regulated drinking water contaminants. New Jersey adopted a standard, or maximum contaminant level (MCL), for PFOA in 2020 and monitoring began in 2021. The MCL for PFOA is 14 parts per trillion and is based on a running annual average (RAA), in which the four most recent quarters of monitoring data are averaged. On July 22, 2021, we received notice that the samples collected from the Fairview Avenue Well on 3/31/2021 and 6/30/2021 showed that our system exceeds the PFOA MCL. PFOA was found at 35.1 and 33.5 parts per trillion respectively which caused the RAA to exceed the MCL regardless of the next two (2) quarter results. In July 2021, the Township of Verona stopped using the Fairview Avenue Well and proceeded to purchase all drinking water for Verona residents from the Passaic Valley Water Commission, which does not exceed the MCL.

What is PFOA?

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 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.*

** For specific health information, see*
https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf.

What should I do?

- If you have specific health concerns, a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at higher risk than other individuals and should seek advice from your health care providers about drinking this water.
- The New Jersey Department of Health advises that infant formula and other beverages for infants, such as juice, should be prepared with bottled water when PFOA is elevated in drinking water.
- Pregnant, nursing, and women considering having children may choose to use bottled water for drinking and cooking to reduce exposure to PFOA.
- Other people may also choose to use bottled water for drinking and cooking to reduce exposure to PFOA or a home water filter that is certified to reduce levels of PFOA. Home water treatment devices are available that can reduce levels of PFOA. For more specific information regarding the effectiveness of home water filters for reducing PFOA, visit the National Sanitation Foundation (NSF) International website, http://www.nsf.org/.
- Boiling your water will not remove PFOA.

For more information, see https://www.nj.gov/dep/watersupply/pfas/.

What is being done?

Typically, the Township of Verona blends water purchased from the Passaic Valley Water Commission with water supplied by our well. Although the New Jersey Safe Drinking Water Act allows water systems a year following a violation to bring the drinking water into compliance with the MCL, as of July 28, 2021, the Township removed the Fairview Avenue Well from service and began purchasing all water for Verona residents from Passaic Valley Water Commission.

The Linn Drive Well was out of service for repair during the first half of 2021 so sampling did not occur. However, based on the results of preliminary samples taken in 2020, we expect water from the Linn Drive Well will also exceed the MCL for PFOA. Although we do not currently have a violation for the Linn Drive Well, the Township will keep the Linn Drive Well out of service.

As stated above, the Township is now solely utilizing water purchased from the Passaic Valley Water Commission (NJ1605002) until such time as we can remediate this issue. The water from the Passaic Valley Water Commission does not exceed the contamination limits for PFOA per the New Jersey Department of Environmental Protection regulations. Accordingly, the water currently being distributed to the Township's water users meets all safety standards and is safe to drink.

The Township is working to design and engineer a proper remediation system for both wells. We anticipate being able to resolve this problem within a year.

For more information, please contact Township Manager, Joe O D'Arco at (973) 857-4767 or townshipmanager@veronanj.org.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Verona Water Department . State Water System ID#: NJ0720001.

Date distributed: __04/08/2022_.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Verona Water System – PWSID NJ07020001

Dear Residents,

Verona Water Department is required, as a purchaser of water from Passaic Valley Water Commission, to provide notice that Passaic Valley Water Commission water system violated a drinking water requirement.

Passaic Valley Water Commission has installed corrosion control treatment to help prevent lead and/or copper in the pipes from dissolving into the water. During the 7/1/2021- 12/31/2021 monitoring period, they failed to consistently meet treatment technique requirements for their corrosion control system. Water Quality Parameter (WQP) results did not meet the optimal WQP control values set by the State 54 days in the 6-month monitoring period, and the water system cannot be outside the values set by the State for nine or more days.

Enclosed please find the public notice issued to residents of Passaic Valley Water Commission and provided to Verona Water Department which includes additional information about this violation.

What is being done?
Under normal circumstances, Verona Water Department blends water purchased from Passaic Valley Water Commission with water from the Verona Water Departments treatment plants. However, as we previously notified you in our public notice for Perfluorooctanoic acid (PFOA), Verona is solely utilizing water purchased from the Passaic Valley Water Commission as of July 28, 2021, until such time that we can remediate our PFOA issue. *You were previously notified of the PFOA maximum contaminant level violation in public notices issued on April 1, 2022, January 1, 2022, and September 1, 2021.*

> **Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. **

For more information, please contact Township Manager, Joe O D'Arco at (973) 857-4767 or townshipmanager@veronanj.org.

This notice is being sent to you by Verona Water Department. PWSID #: NJ0720001
Date distributed: April 15th, 2022

PASSAIC VALLEY WATER COMMISSION
1525 MAIN AVENUE • P.O. BOX 230
CLIFTON, NEW JERSEY 07011 • (973) 340-4300
CLIFTON FAX # (973) 340-4321

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Passaic Valley Water Commission Failed to Meet Water Quality Parameter (WQP) Levels

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did and are doing to correct this situation.

Our system has installed corrosion control treatment to help prevent lead and/or copper in the pipes from dissolving into the water. During the 7/1/2021- 12/31/2021 monitoring period, we failed to consistently meet treatment technique requirements for our corrosion control system. WQP results did not meet the optimal WQP control values set by the State 54 days in the 6-month monitoring period, and the system cannot be outside the values set by the State for nine or more days.

What should I do?
Listed below are some steps you can take to reduce your exposure to lead and/or copper:

- Run water to flush out lead and/or copper. Run water for 15 – 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours.
- Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; Lead dissolves more quickly into hot water. Do not use water from the hot water tap to make baby formula.
- Do not boil water. Boiling water will not reduce lead and/or copper levels.
- Use alternate sources or treatment of water. You may want to consider using bottled water for drinking and cooking or a water filter designed to remove Lead. Read the package to be sure the filter is approved to reduce Lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's standards to ensure water quality.
- Get your child tested. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure.

What does this mean?
This is not an emergency. If it had been, you would have been notified within 24 hours.

However, infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician.

If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

What is being done?
Passaic Valley Water Commission performed a comprehensive review of all system water quality parameter data upon notification of the violation. It is important to note that the excursions were detected at one pump station and the treatment plant. At no point were any violations detected in the distribution system sampling results. In consult with the NJDEP we have modified our sampling and reporting practices and instituted even stronger quality assurance and control procedures related to sampling and data management.

For more information, please contact Customer Service at 973-340-4300 or customerservice@pvwc.com.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Passaic Valley Water Commission. State Water System ID#: NJ1605002.
Date distributed: 4/11/2022