Annual Drinking Water Quality Report
Montville Township Water Department
Report for the Year 2023, Results from the Year 2022

Following is this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day.

The Montville Township Water Department and our suppliers routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of that monitoring for the period of January 1st to December 31st, 2022. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants does not change frequently. Some of our data, though representative, is more than one year old.

Our water supply: Water for the Montville Township Water System is derived from the Township's two (2) Indian Lane well facilities. We have three (3) wells that draw their water from glacial sand and gravel aquifer systems. Approximately 80% of our drinking water is derived from the Township's Indian Lane Wells**.** In times of peak demand, we purchase water from the Jersey City Veolia reservoir via pumping facilities located on River Road, and from the North Jersey District Water Supply Commission (NJDWSC) via the Lincoln Park Water System. Their supply sources are the Pompton River, and the Wanaque and Monksville Reservoirs. Water Quality results are provided for Jersey City Water and North Jersey District Water Supply Commission. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Reports and Summaries for these public water systems, which are available by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550 or at https://www.nj.gov/dep/watersupply/swap/index.html. You may also contact your public water system at 973-331-3300. Montville Township Water Department's source water susceptibility ratings and a list of potential contaminant sources is included.

Vulnerable populations: 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Montville Township Water Department Test Results
PWS ID# NJ1421003

Contaminant	Viol-ation Y/N	Level Detected	Units of Measure-ment	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Arsenic Test results Yr. 2021	N	Range = 2.14 – 2.18 Highest detect = 2.18	ppb	N/A	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium Test results Yr. 2021	N	Range = 0.11 – 0.13 Highest detect = 0.13	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Result at 90th Percentile Test results Yr. 2020	N	0.49 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90th Percentile Test results Yr. 2020	N	3.2 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel Test results Yr. 2021	N	Range = 2.46 – 2.49 Highest detect = 2.49	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen) Test results Yr. 2022	N	Range = 0.23 – 0.38 Highest detect = 0.38	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radioactive Contaminants						
Gross Alpha Test results Yr. 2021	N	Range = 3.0 – 4.8 Highest detect = 4.8	pCi/l	0	15	Erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2022	N	Range = 14 - 68 Highest LRAA = 49	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2022	N	Range = 1 - 22 Highest LRAA = 23	ppb	N/A	60	By-product of drinking water disinfection
PFAS Per- and Polyfluoroalkyl Substances:						
PFOA Perfluorooctane Acid Test results Yr. 2022	N	Range = 5.6 Highest detect = 5.6	ppt	N/A	14	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine: Test results Yr. 2022	Range = 0.4 – 1.0 ppm Average = 0.7 ppm	4.0 ppm	4.0 ppm

Chlorine: Water additive used to control microbes.
HAA5 and TTHM compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

If you are a landlord, you must distribute this Drinking Water Quality Report to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be done by hand, mail, or email, and by posting the information in a prominent location at the entrance of each rental premises, pursuant to section #3 of NJ P.L. 2021, c.82 (C.58:12A-12.4 et seq.).

North Jersey District Water Supply Commission (NJDWSC) 2022 Test Results
PWS ID #NJ1613001

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity	N	Highest Measurement 0.4 Range = 0.03 – 0.4 99.98 % < 0.3	NTU	0	TT 0.3 NTU % of the NTU	Soil runoff
Total Organic Carbon (%)	N	Removal Ratio 0.9 – 1.4 RAA = 1.1	%	NA	TT = % removal	Naturally present in the environment
PFAS Per- and Polyfluoroalkyl Substances:						
PFOA Perfluorooctane Acid	N	4.4	ppt	N/A	14	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.
PFOS Perfluorooctane Sulfonic Acid	N	3.6	ppt	N/A	13	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.

Jersey City Veolia Water 2022 Test Results
PWS ID #NJ0906001

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants:						
Turbidity	N	Range = 0.05 – 0.26 100 % samples < 0.3	NTU	0	TT = % of monthly samples <0.3 NTU	Soil runoff
Total Organic Carbon (%)	N	Range = 1.0 – 1.3 removal 100 % (25 – 50 % required)		NA	TT = % removal	Naturally present in the environment
Inorganic Contaminants:						
Antimony	N	1.15	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium	N	0.02	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	N	0.5	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Nickel	N	0.6	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	N	Range = 0.14 – 0.39 Highest detect = 0.39	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
PFAS Per- and Polyfluoroalkyl Substances:						
PFOA Perfluorooctane Acid	N	Range = 5 - 10 Highest detect = 10 Highest Average = 6	ppt	N/A	14	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.
PFOS Perfluorooctane Sulfonic Acid	N	Range = 6 - 11 Highest detect = 11 Highest Average = 8	ppt	N/A	13	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium	Range = 38 - 69	ppm	50

Jersey City Veolia Water exceeded the Recommended Upper Limit for sodium. 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 (RUL) may be of concern to individuals on a sodium restricted diet.

What are PFOA and PFOS?

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was 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. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water. More information can be found at: https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOS-PFOA-websites-OLA%204-24-19SDM-(003).pdf

Jersey City Veolia Water Unregulated Contaminant Monitoring 2022

Contaminant	Unit	MCL	MCLG	Range	Likely Source
Perfluoro butane sulfonic acid (PFBS)	ppt	N/A	N/A	ND - 2	Used in products to make them stain, heat, and water resistant.
Perfluoro heptanoic acid (PFHpA)	ppt	N/A	N/A	ND - 3	Used in products to make them stain, heat, and water resistant.
Perfluoro hexane sulfonic acid (PFHxS)	ppt	N/A	N/A	3 - 6	Used in products to make them stain, heat, and water resistant.

Unregulated contaminants are those 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.

DEFINITIONS:

In the "Test Results" tables you may find some terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the contaminant was not detected above the analysis detection level.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or nanogram per liter - one part per trillion corresponds to one minute in 20,000 years, or a single penny in $100,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

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.

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 allow for a margin of safety.

Secondary Contaminant- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Recommended Upper Limit (RUL) – Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RULs are recommendations, not mandates.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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

Total Organic Carbon – Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. The *Treatment Technique* for TOC requires that 35% - 45% of the TOC in the raw water is removed through the treatment processes.

Turbidity – Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium microbial growth. Turbidity is measured as an indication of the effectiveness of the filtration process. The *Treatment Technique* for turbidity requires that no individual sample exceeds 1 NTU and 95% of the samples collected during the month must be less than 0.3 NTU.

Sources of Lead in Drinking Water

The Montville Water Department and its suppliers are responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Although most lead exposure occurs from inhaling dust or from contaminated soil, or when children eat paint chips, the U.S. Environmental Protection Agency (USEPA) estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Lead is rarely found in the source of your drinking water but enters tap water through corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing materials. These materials include lead-based solder used to join copper pipes, brass, and chrome-brass faucets, and in some cases, service lines made of or lined with lead. New brass faucets, fittings, and valves, including those advertised as "lead-free", may still contain a small percentage of lead, and contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 0.25 percent lead to be labeled as "lead free". However, prior to January 4, 2014, "lead free" allowed up to 8 percent lead content of the wetted surfaces of plumbing products including those labeled National Sanitation Foundation (NSF) certified. Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures. Consumers should be aware of this when choosing fixtures and take appropriate precautions. When water stands in lead service lines, lead pipes, or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead. Please call 973-331-3300 to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. 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. You can find out more about how to get your child tested and how to pay for it at https://www.state.nj.us/health/childhoodlead/testing.shtml.

In July 2021, P.L.2021, Ch.183 (Law) was enacted, requiring all community water systems to replace lead service lines in their service area within 10 years. Under the law, the Montville Township Water Department is required to notify customers, non-paying consumers, and any off-site owner of a property (e.g., landlord) when it is known they are served by a lead service line*. Our service line inventory is available on our website or available upon request.

The Montville Township Water Department offices are located in the Montville Township Municipal Building. 195 Changebridge Road. Questions concerning this report should be directed to David Kirkham – Director, Water & Sewer at 973-331-3330. The Montville Township Committee holds regular business meetings on the second and fourth Tuesday of every month at 8:00 PM at the Montville Township Municipal Building. Additional information can be found on our website: www.montvillenj.org

We at the Montville 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.

Montville Township Water Department - PWSID # NJ1421003

Montville Township Water Department is a public community water system consisting of 3 wells and 2 purchased surface water sources.

This system's source water comes from the following: glacial sand and gravel aquifer systems.

This system purchases water from the following water systems: Lincoln Park Water and Jersey City Water.

Susceptibility Ratings for Montville Township Water Department Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for 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. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors		
Sources	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 - 3		**3**		**3**				**1**	**2**	**3**			**3**			**1**	**2**		**3**			**1**	**2**	

NJDWSC SOURCE WATER ASSESSMENTS

Intake Susceptibility Ratings	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radionuclides	Radon	Disinfection Byproduct Precursors
NJDWSC 5 Surface Water	**5-High**	**5-High**	**2-Medium 3-Low**	**5-Medium**	**5-High**	**5-Low**	**5-Low**	**5-High**

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.

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

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.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

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.

Potential sources of contamination: 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas projection, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 storm water 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.

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.