

# Annual Drinking Water Quality Report

## Borough of Mount Arlington

For the Year 2021, Results from the Year 2020

We are pleased to present to you 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. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

The water distribution system serves two hydraulically independent areas (consumers in the former Mt. Arlington Water Company service area – Edgemere Avenue surrounding and along Mountainview Avenue and Howard Boulevard and consumers in the former Mt. Arlington Service Co. service area – Kadel Drive and surrounding area). Starting in the year 2000, the entire Mount Arlington water system has been supplied by bulk water purchased from the Morris County Municipal Utilities Authority (MCMUA). Their source is ground water, treated with sodium hypochlorite for disinfection and lime for pH adjustment. The MCMUA source water is from two wellfields, Alamatong located in Randolph and Chester Townships consisting of six wells, and Flanders Valley located in Mount Olive and Roxbury Townships with two wells. The MCMUA wells draw their water from the Upper and Lower Stratified Glacier Drift and the Upper and Lower Leithsville Limestone Formations. A source water protection plan that provides more information such as; potential sources of contamination is available at the MCMUA office at 300 Mendham Road, Morris Township. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for the MCMUA water system, which is available at [www.state.nj.us/dep/swap](http://www.state.nj.us/dep/swap) or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system at 973-398-6832.

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).

Mount Arlington Water Department Test Results PWS ID# NJ1426002						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
<b>Inorganic Contaminants:</b>						
Copper Test results Yr. 2020 Result at 90 <sup>th</sup> Percentile	N	0.26 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Test results Yr. 2020 Result at 90 <sup>th</sup> Percentile	N	ND No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
<b>Disinfection Byproducts:</b>						
TTHMs Total Trihalomethanes Test results Yr. 2020	N	Range = ND - 10 Highest detect = 10	ppb	N/A	80	By-product of drinking water disinfection
HAA5s Haloacetic Acids Test results Yr. 2020	N	Range = ND - 2 Highest detect = 2	ppb	N/A	80	By-product of drinking water disinfection
<b>Regulated Disinfectants:</b>		<b>Level Detected</b>		<b>MRDL</b>		<b>MRDLG</b>
Chlorine Test results Yr. 2020		Range = 0.5 - 1.4 ppm Average = 0.9 ppm		4.0 ppm		4.0 ppm

**Chlorine:** Water additive used to control microbes.

Mount Arlington Water Department Test Results PWS ID# NJ1426005						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
<b>Inorganic Contaminants:</b>						
Copper Test results Yr. 2020 Result at 90 <sup>th</sup> Percentile	N	0.27 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Test results Yr. 2020 Result at 90 <sup>th</sup> Percentile	N	3.9 1 sample out of 20 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
<b>Disinfection Byproducts:</b>						
TTHMs Total Trihalomethanes Test results Yr. 2020	N	Range = 4 - 5 Highest detect = 5	ppb	N/A	80	By-product of drinking water disinfection
HAA5s Haloacetic Acids Test results Yr. 2020	N	Range = ND - 1 Highest detect = 1	ppb	N/A	80	By-product of drinking water disinfection
<b>Regulated Disinfectants:</b>		<b>Level Detected</b>		<b>MRDL</b>		<b>MRDLG</b>
Chlorine Test results Yr. 2020		Range = 0.5 - 1.2 ppm Average = 0.8 ppm		4.0 ppm		4.0 ppm

The MCMUA has provided their 2020 Water Quality Report. In addition to the MCMUA monitoring, Mount Arlington Water Department provides additional monitoring of certain constituents to assure your water quality. EPA requires monitoring for over 80 drinking water contaminants. The tables show the results of that monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2020. Those contaminants listed in the tables are only contaminants detected in your water. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, is more than one year old.

**If you have any questions about this report or concerning your water utility, please contact Scott Hutchins DPW Supervisor at (973) 398-4200. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings at the Municipal Building, 419 Howard Boulevard. Regularly scheduled meetings are held on the second and fourth Monday of each month at 7:00 p.m.**

Morris County MUA Test Results PWSID# NJ1432001						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination

Inorganic Contaminants:						
Barium Test results Yr. 2020	N	Range = 0.01 – 0.1 Highest detect = 0.1	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium Test results Yr. 2020	N	Range = ND – 0.7 Highest detect = 0.7	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride Test results Yr. 2020	N	Range = Nd – 0.13 Highest detect = 0.13	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) Test results Yr. 2020	N	Range = 0.7 – 2.9 Highest detect = 2.9	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nickel Test results Yr. 2020	N	Range = ND – 0.9 Highest detect = 0.9	ppb	N/A	N/A	Erosion of natural deposits

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium Test results Yr. 2020	Range = 6 - 52	Ppm	50

#### **Sodium**

The Morris County MUA slightly exceeded the Recommended Upper Limit (RUL) for sodium at one of their wells. 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 RUL may be of concern to individuals on a sodium restricted diet.

**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. RUL's are recommendations, not mandates.

**Unregulated Contaminant Monitoring:** The Morris County MUA monitored for the following unregulated contaminants. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Per – and polyfluoroalkyl substances (PFAS) are widely found in the environment. EPA has identified a health advisory level for two PFAS analytes, PFOA and PFOS 0.070 ppb either singly or combined, and NJDEP has adopted new drinking water standards (Maximum Contaminant Levels (MCLs)) for PFOA and PFOS of 14 ng/L (ppt) and 13 ng/L (ppt), respectively, as of January 2021. The detected levels of PFOA and PFOS found are below DEP's MCLs.

#### **Morris County MUA Test Results**

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = ND – 6.9	ppt	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = ND – 8.6	ppt	Used in the manufacture of fluoropolymers.

**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\\_PFOA-PFOA-websites-OLA%204-24-19SDM-\(003\).pdf](https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOA-websites-OLA%204-24-19SDM-(003).pdf)

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. The MCMUA system received monitoring waivers for asbestos and synthetic organic chemicals.

The following is a brief summary of the source water assessment performed by the NJDEP. Morris County M.U.A. is a public community water system consisting of 8 wells. The systems source water comes from the following aquifer: glacial sand and gravel, limestone aquifer system. The table below illustrates the susceptibility ratings on the following potential contaminant sources that the NJDEP found within the source water assessment areas. Each source has a susceptibility rating of high, medium, or low for each potential contaminant.

**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 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.

Potential Contaminants	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			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			
Sources																											
Wells - 8		8		4	2	2		2	6	2		6		1	7	1	6	1	2	6		5	3				

- Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal waste
- Nutrients:** Compounds, minerals and elements that aid growth that are both naturally occurring and manmade.
- Volatile Organic Compounds:** Manmade chemicals used as solvents, degreasers, and gasoline components.
- Pesticides:** Manmade chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides.
- Inorganics:** Mineral-based compounds that are naturally occurring and manmade.
- Radionuclides:** Radioactive substances that are naturally occurring and manmade.
- Radon:** Colorless, odorless, cancer causing gas that occurs naturally in the environment.
- Disinfection Byproduct Precursors:** A common source is naturally occurring organic matter in surface water. Disinfection by products are formed when the disinfectants (usually chlorine) is used to kill pathogens react with dissolved organic material present in water.

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.

## **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 constituent is not present.

**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.

**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.

**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

**Lead:** 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 Borough of Mount Arlington Water Department and the Morris County MUA are 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 second to 2 minutes before using water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure 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.* To determine if you have a lead service line, please contact your drinking water utility.

## **IMPORTANT INFORMATION ABOUT OUR DRINKING WATER**

The Morris County MUA Monitored Late for Inorganic Contaminants

This past year the Morris County MUA received a Monitoring and Reporting (M&R) violation for missed monitoring. Although this was not an emergency, as their customers, you have a right to know what happened.

They inadvertently missed monitoring for Inorganic Contaminants (IOCs) during the last monitoring period. They were required to monitor once between January 1, 2017 and December 31, 2019, but they monitored in August 2020. The IOC detections are listed in the "Test Results" table. All results were in compliance.

### **Inorganic Contaminants**

Antimony; Arsenic; Asbestos; Barium; Beryllium; Cadmium; Chromium; Cyanide; Fluoride; Mercury; Nickel; Nitrate; Nitrite; Selenium; Thallium

What should I do?

There is nothing you need to do at this time.

### **Special Notice:**

All Water Systems must provide a Certification Form to the New Jersey Department of Environmental Protection (NJDEP) that a Consumer Confidence Report (Drinking Water Quality Report) was made available to their customers, no later than October 1<sup>st</sup> for any given year. In 2020, the Morris County MUA did not provide that Certification Form to NJDEP until December 2020.

**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.**