

# Matawan Water Department

## 2022 Water Quality Report

For 2021 Analytical Results

**Public Water System Identification Number: 1329001**

The Matawan Department of Public Works is pleased to present this summary of the water quality delivered to our customer's during 2021. The Safe Drinking Water Act requires that water utilities issue an Annual Water Quality Report (Consumer Confidence Report) and any other notices that affect the quality of water produced by Matawan's ground water treatment plant or delivered by New Jersey American Water. This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

### **Please Distribute This Report**

Landlords, businesses, schools, and health care facilities are encouraged to share this report with other water users at their establishments. Additional copies may be obtained by calling 732-290-2015.

### **Where does my water come from?**

Matawan's ground water treatment plant produces an average of 150 million gallons of water each year, and another 120 million gallons is purchased from New Jersey American Water. In the Table of Detected Contaminants, you will find contaminants that were identified in the water produced by the Matawan plant and purchased from New Jersey American. Customers wishing to view the entire New Jersey American Report can follow a link on [www.matawanborough.com](http://www.matawanborough.com) or go directly to New Jersey American's web page <https://www.amwater.com/ccr/coastalnorth.pdf>

The source of the ground water produced by the Matawan Water Plant is the Old Bridge Sands Strata of the Potomac-Raritan-Magothy (PRM) Aquifer. Water received from New Jersey American may be a blend of water taken from the PRM or surface water from the Manasquan or Swimming River Reservoirs.

We are pleased to report that during 2021 the water delivered to our customers from each of these sources met, or exceeded, all state and federal water quality standards.

### **Is my water fluoridated?**

Fluoride is not added to the water produced by the Matawan Treatment Plant, April through October. Water received from the New Jersey American System, November through March, is fluoridated to 0.7 parts-per-million. If you have any questions regarding fluoride, please call American Water's Customer Service Center at 1-800-272-1325.

### **Description of Water Treatment Process**

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal, or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before it is stored and distributed to homes and businesses in the community.

## Why are there contaminants in my drinking water?

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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. Microbial contaminants, such as viruses and bacteria, that 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. To ensure that tap water is safe to drink, EPA prescribes regulations that limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## Lead in Drinking Water

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. Matawan 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, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

## 2021 Lead Analytical Results

Drinking water samples were collected from 20 homes serviced by water lines partially comprised of lead, placing them at elevated risk for lead contamination. All the sample results were well below the Action Level for lead.

## Additional Information for Nitrate

Nitrate in drinking water above 10 ppm is a health risk for infants less than six months old. High levels of nitrate can cause a condition known as Blue Baby Syndrome, a condition that can interfere with the capacity of the infant's blood to carry oxygen. Nitrate levels may rise quickly for short periods because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

The Matawan System is required to test annually for the presence of nitrate. The analytical results consistently indicate that nitrate is not detectable or at levels well below the maximum contaminant level.

## Monitoring Requirement Not Met

During 2020 and 2021 our water system violated drinking water monitoring requirements. Even though this was not an emergency, and did not pose a health risk, as our customer, you have a right to know what happened and what we are doing to correct the situation. The sampling violations are as follows:

- 1- Public notification failure to monitor bi-weekly Water Quality Parameters at the New Jersey American Interconnection during January 2020.
- 2- Insufficient Water Quality Parameter monitoring January 1, 2020, through June 30, 2020. Six samples were required. Only three were obtained.
- 3- Public notification failure to obtain one Water Quality Parameter sample at the New Jersey American Interconnection for the period 3/26/21- 4/8/21.
- 4- Public notification failure to obtain one Water Quality Parameter sample at the New Jersey American Interconnection for the period 11/19/21 – 12/2/21

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During the time periods indicated above, some mandatory Water Quality Parameter sampling, which determines the pH and zinc orthophosphate (corrosion inhibitor) levels of the water was not done. Although these parameters are regularly monitored repeatedly throughout the year by both Matawan and New Jersey American's laboratories, some of the required sampling during the required specified periods was not done.*

### What corrective measures have been taken?

The Matawan water superintendent has met with a representative from the New Jersey Department of Environmental Protection’s Bureau of Enforcement. An extensive review and discussion has taken place to confirm that there is a clear understanding of Matawan’s sampling relating to Water Quality Parameter regulations.

Residents with additional questions or concerns may contact the licensed operator for the Matawan system, Eric Frye, at 732-566-3898 Ext. 151 or [eric.frye@matawanborough.com](mailto:eric.frye@matawanborough.com) or the New Jersey Department of Environmental Protection at 609-292-2550.

### How can I get involved?

Contact information for all the members of Matawan's governing body and department heads may be found on the Matawan web site, [www.matawanborough.com](http://www.matawanborough.com). If you would like to discuss issues in person, the regular meeting of the mayor and council typically takes place the first and third Tuesday of every month.

Specific questions or concerns about the water system can be directed to **Eric Frye, 732-566-3898 Ext. 151** or [eric.frye@matawanborough.com](mailto:eric.frye@matawanborough.com)

### Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for the Matawan system, which is available at [www.nj.gov/dep/watersupply/swap/index.html](http://www.nj.gov/dep/watersupply/swap/index.html) or by contacting the NJDEP’s Bureau of Safe Drinking Water (609) 292-5550 or [watersupply@dep.nj.gov](mailto:watersupply@dep.nj.gov).

### Susceptibility Rating for Matawan’s Source Water

Matawan’s source water comes from the upper Potomac-Raritan-Magothy Aquifer. The table below illustrates the susceptibility rating for the seven contaminant categories (and radon) for each source. The table provides the number of wells that rated High (H), Medium (M) or Low (L) for each contaminant category.

#### Chart Definitions

- **Pathogens:** Disease-causing organisms. Animal and human fecal waste.
- **Nutrients:** Elements that aid growth such as nitrogen and phosphorus
- **VOC’s:** Synthetic chemicals such as degreasers, gasoline, benzene, and vinyl chloride.
- **Pesticides:** Synthetic chemicals to control pests, weeds, and fungus.
- **Inorganics:** Mineral-based compounds both naturally occurring and synthetically produced such as arsenic, asbestos copper and lead.
- **Radionuclides:** Radioactive substances naturally occurring and man-made such as radium and uranium.
- **Radon:** Colorless, odorless naturally occurring cancer-causing gas.

	Pathogens	Nutrients	Pesticides	Inorganics
Source	H M L	H M L	H M L	H M L
Wells 2	2	2	2	2
	VOC *	Radio Nuclides	Radon	DBP **
Source	H M L	H M L	H M L	H M L
Wells 2	2	2	2	2

\* Volatile Organic Chemicals    \*\* Disinfection By-product Precursors

## Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides. They contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- Properly dispose of pharmaceuticals.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## Information Regarding PFOA/PFOS

Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) are fluorinated organic chemicals that are part of a larger group of chemicals commonly referred to as per- and poly-fluoroalkyl substances (PFASs). These chemicals are widely used throughout industry and used in the manufacture of many consumer products such as carpets, furniture, waterproofing materials, and cookware.

Exposure to PFOA and PFOS over certain levels may have undesirable health effects. The primary exposure route is through food and consumer products, but because of the chemical's ability to accumulate in ground water, NJDEP has established Maximum Contaminant Levels (MCLs) for PFOS at 13 ppt and 14 ppt for PFOA.

## About the Water Quality Table

To ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of contaminants in water provided by public water systems. The table below lists all the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

## Water Quality Data Table

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Matawan's 2021 Table of Detected Contaminants							
	Year Sample	Units	Action Level	MCLG	Results	Compliance Achieved	Typical Source
<b>Lead and Copper</b>							
Copper	2020	ppm	1.3	1.3	Detected at 90 <sup>th</sup> percentile 0.1	Yes	Corrosion of household plumbing
Lead	2020	ppb	15	0	Detected at 90 <sup>th</sup> percentile <2	Yes	Corrosion of household plumbing
<b>Disinfectants</b>							

<b>Disinfectants</b>							
Chlorine	2021	ppm	MRDL = 4	MRDLG =4	Range Detected .60- 1.7	Yes	Water additive to control microbes
Chloramines	2021	ppm	MRDL = 4	MRDLG =4	Range Detected .10 to 1.4	Yes	Water additive to control microbes

<b>Disinfection By Products</b>							
Contaminant	Sample Year	Units	MCL	LRAA	Range	Compliance Achieve	Typical Source
Total Haloacetic Acids (Dock St Site)	2021	ppb	60	21	Range: 12 to 38	Yes	Byproduct of drinking water disinfection
Total Haloacetic Acids (Danemar Site)	2021	ppb	60	15	Range:5 to 33	Yes	Byproduct of drinking water disinfection
Total Trihalomethanes (Dock St. Site)	2021	ppb	80	47	Range: 10 to 75	Yes	Byproduct of drinking water disinfection
Total Trihalomethanes (Danemar Site)	2021	Ppb	80	33	Range: 10 to 66	Yes	Byproduct of drinking water disinfection

**PFOA/PFOS**

Contaminant	Sample Year	Units	MCL	Range Detected	Typical Source
Perfluorooctanoic acid (PFOA)	2021	ppt	13	ND to 6.07	Used in firefighting chemicals, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluoropentanoic Acid (PFOS)	2021	ppt	14	ND 1.74	Synthetic chemical used in stain, grease, heat, and water-resistant materials

**Explanation of Table Abbreviations**

<b>Unit Descriptions</b>	
<b>Term</b>	<b>Definition</b>
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
NTU	Nephelometric Turbidity Units. (measurement of water clarity)
RUL	Recommended Upper Limit
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
ppt	Parts per trillion
MRDLG	MRDLG: Maximum residual disinfection 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 contaminants.

Unit Descriptions	
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
LRAA	Locational Running Annual Average
RAA	Running Annual Average

For additional information, please contact: Contact Name: John J. Applegate  
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Phone: 732 290 2015 or [john.applegate@matawanborough.com](mailto:john.applegate@matawanborough.com)

**Additional Informational Resources for Drinking Water Information**

NJDEP – 609-292-5550 [www.state.nj.us/dep](http://www.state.nj.us/dep)  
USEPA – 1-800-426-4791 [www.epa.gov/safewater](http://www.epa.gov/safewater)  
Center for Disease Control and Prevention – [cdc.gov](http://cdc.gov)  
NJDEP Drinking Water Watch [https://www9.state.nj.us/DEP/WaterWatch\\_public/](https://www9.state.nj.us/DEP/WaterWatch_public/)  
NJ American Water-<https://amwater.com/njaw/>