

2019 Annual Water Quality Report

Mansfield System PWSID NJ2116003



A Message from the New Jersey American Water President

To Our Valued Customers:

New Jersey American Water is proud to be your local water service provider, and I am pleased to share some very good news about the quality of your drinking water. As you read through our Annual Water Quality Report, you will see that we continue to supply water that meets or surpasses all state and federal water quality standards. Additionally, the price you pay for this high-quality water service remains a great value as one of the lowest household utility bills.

We never forget that at the end of every water pipe there's a family depending on us to provide one of life's critical resources. New Jersey American Water has the expertise of more than 800 experienced professionals, the right technologies in use, and a demonstrated commitment to replacing and upgrading our infrastructure so that your drinking water is clean, safe and reliable.

Our team of experts monitors, maintains and upgrades our facilities so that they operate efficiently and meet all regulatory standards. This requires investing millions of dollars each year in our infrastructure, including treatment plants, tanks, pump stations, pipes, fire hydrants and metering equipment. We do this because we care about our customers as much as we care about water. Statewide, we invested more than \$375 million in 2019 alone to improve our water treatment and delivery systems.

Additionally, in 2020, during the COVID-19 public health emergency, New Jersey American Water activated business continuity plans to strengthen our ability to provide reliable, high-quality service to our customers, continue to deliver water and wastewater services and protect our employees and customers. According to the U.S. Environmental Protection Agency (EPA) based on current research, the risk to water supplies from coronavirus is low. The EPA has also relayed that Americans can continue to use and drink water from their tap as usual.

New Jersey American Water remains committed to the delivery of safe, reliable water. That includes continued operation of drinking water treatment barriers, which provide an added layer of protection that includes filtration and disinfection of our surface water supplies (e.g., those from lakes, reservoirs or rivers) and disinfection of our groundwater sources (e.g., underground wells).

We have an exceptional track record when it comes to water quality and drinking water regulatory compliance. In fact, we take water quality so seriously that five of our surface water treatment plants have been nationally recognized with Directors Awards from the EPA's Partnership for Safe Water program for surpassing federal and state drinking water standards.

Please take the time to review this report. It provides details about the source and quality of your drinking water, using the data from water quality testing conducted for your local system between January and December 2019. If you have any questions, I encourage you to visit the Water Quality page of our website at <u>www.newierseyamwater.com</u>, or call our Customer Service Center at 800-272-1325. Sincerely,

Charge D. Norton

Cheryl Norton

President, New Jersey American Water

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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આ અહેવાલ માં તમારા પોવાના પાણી વિષે
આગત્પ ની ભાગકારી આપવામાં આવી છે.
ઓનો અનુવાદ કરા અપવા જેને સમજણ પડતી
છેમ તેની આપે વાત કરો
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이 보고서에는 귀하께서 사용하고 계시는 식수에 관한 정보가 들어있습니다.
만약에 이해를 못하시면 누군가에게 번역을 의뢰하십시오.
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本报告与您的饮用水有关。
如果您不了解其内容,应请别人为您翻译解说。
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Our Commitment to Quality

Once again, we proudly present our annual water quality report, which details the results of water quality testing completed from January to December 2019. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Included in this report are details about where your water comes from, what it contains, and how our water quality results compare to federal and state standards.

We are pleased to tell you that we had no Safe Drinking Water Act violations again in 2019. We are committed to delivering high quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of our water users.

We want you to be informed about your drinking water. For more information about this report, or for any questions relating to your drinking water, please contact our 24-hour Customer Call Center toll-free at 1-800-272-1325.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers. Additional copies of this report are available by contacting customer service at 1-800-272-1325.

About New Jersey American Water

New Jersey American Water, a subsidiary of American Water Works Company, Inc. (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 2.8 million people. For more information, visit <u>amwater.com/njaw/</u> and follow New Jersey American Water on <u>Twitter</u> and <u>Facebook</u>.

About American Water

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to 15 million people in 46 states. American Water provides safe, clean, affordable and reliable water services to our customers to help keep their lives flowing. For more information, visit <u>www.amwater.com</u> and follow American Water on <u>Twitter</u>, <u>Facebook</u> and <u>LinkedIn</u>.

How to Contact Us

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers protect our water sources. Please call our Customer Call Center toll-free at 1-800-272-1325 if you have questions:

New Jersey American Water

1 Water Street

Camden, NJ 08102

www.amwater.com

Water Information Sources

New Jersey Department of Environmental Protection,

Bureau of Safe Drinking Water:

(609) 292-5550 • www.state.nj.us/dep

New Jersey Board of Public Utilities:

(800) 624-0241 • 44 S. Clinton Ave, Trenton, NJ 08625

Division of Customer Relations:

1-800-624-0241 • www.state.nj.us/bpu

US Environmental Protection Agency: www.epa.gov/safewater

Safe Drinking Water Hotline: 1-800-426-4791

American Water Works Association: www.awwa.org

Centers for Disease Control and Prevention: www.cdc.gov

Public Participation

How You Can Get Involved

Customers can participate in decisions that may affect the quality of water by:

- Reading the information provided in bill inserts and special mailings
- Contacting the company directly with questions or to discuss issues
- Responding to company requests for participation in focus groups and roundtables
- Attending open houses conducted by the company
- Responding to survey requests

Where Your Water Comes From

Mansfield System - PWSID # NJ2116003

New Jersey American Water - Mansfield System is a public community water system consisting of 2 wells.

This system's source water comes from Jacksonburg limestone, Kittatinny Supergroup.

Protecting Your Water Source

What is S.W.A.P.

The Source Water Assessment Program (SWAP) is a program of the New Jersey Department of Environmental Protection (NJDEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

Susceptibility Ratings for New Jersey American Water - Mansfield System

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. Source Water Assessment Reports and Summaries are available for public water systems at <u>www.state.nj.us/dep/swap/</u> or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

Contaminant Categories

The NJDEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of the SWAP, 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 a low rating was assigned.

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, the NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost effective to prevent contamination than to address contamination after the fact. Every member of the community plays an important role in source water protection. The NJDEP recommends controlling activities and development around drinking water sources, whether it is through land acquisition, conservation easements or hazardous waste collection programs. We will continue to keep you informed of SWAP's progress and developments.

Susceptibility Chart Definitions

- **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 By-product 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.

stem		Pathogens			Nutrients		Pesticides		Volatile Organic Compounds		Inorganics		Radionuclides		Radon		Disinfection By-Product Precursors								
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C	GUDI - O																								
Mai	Surface Water Intakes - 0																								

Cryptosporidium

Cryptosporidium is a protozoan found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal-cramps. Most healthy individuals can overcome the disease within a few weeks. However, people with severely weakened immune systems have a risk of developing a life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to take to avoid infection.

Cryptosporidium must be ingested to cause disease. It can also be spread through means other than drinking water. Researchers with American Water have developed a new, more accurate test for *Cryptosporidium* in water. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems, please contact our customer service center at 1-800-272-1325 or speak with your personal health care provider.

Special Informational Statement for 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. New Jersey American Water 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 http://www.epa.gov/safewater/lead. We take steps to reduce the potential for lead to leach from your pipes into the water. This is accomplished by adding a corrosion inhibitor to the water leaving our treatment facilities. There are steps that you can take to reduce your household's exposure to lead in drinking water. For more information, please review our Lead and Drinking Water Fact Sheet at https://amwater.com/njaw/water-quality/lead-and-drinking-water.

What's in the Source Water Before We Treat It?

In general, the sources of drinking water (both tap 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 can pick up substances resulting from the presence of animals or from human activities.

Substances That May Be Present in Source Water Include:

Microbiological Contaminants: such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.

Inorganic Contaminants: such as salts and metals which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff and septic systems.

Radioactive Contaminants: which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

What is Radon?

Radon is a radioactive gas that occurs naturally in some groundwater. It may pose a health risk when the gas is released from water into air, as occurs while showering, washing dishes and performing other household activities. Radon can move up through the ground and into a home through cracks in the foundation. Compared to radon entering the home through soil, radon entering through tap water is, in most cases, a small source of radon in indoor air. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level.

During testing in 2015, our water showed radon levels between 299 and 566 pCi/L in the Mansfield System. The EPA is developing regulations to reduce radon in drinking water. Radon in the air is inexpensive to test and easy to correct. For additional information, call the EPA's Radon Hotline at 1-800-55-RADON.

Do I Need to Take Special Precautions?

To ensure that tap water is safe to drink, the EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. 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 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 at 1-800-426-4791.

How Do I Read the Table of Detected Contaminants?

First, determine which table you should read by finding your town in the "Towns Served by this System". Starting with the **Contaminant**, read across from left to right. A "**Yes**" under **Compliance Achieved** means the amount of the substance met government requirements. The column marked **MCLG**, **Maximum Contaminant Level Goal**, 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. The shaded column marked **MCL**, **Maximum Contaminant Level**, 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. The column marked **Range Detected** shows the highest and lowest test results for the year. The column marked **Highest Level Detected** shows the highest test results during the year. **Typical Source** shows where this substance usually originates. Compare the Range Detected values with the MCL column. To be in compliance, the Highest Level Detected must be lower than the MCL. Those regulated substances not listed in the table were not found in the treated water supply.

As you can see from the table, our system had no MCL violations again this year. The footnotes and the definitions below will help you interpret the data presented in the Table of Detected Contaminants.

Table Definitions

90th Percentile Value: Of the samples taken, 90% of the values of the results were below the level indicated in the table.

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

Disinfection By-product: Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens reacts with dissolved organic material (for example leaves) present in surface water.

LRAA (Locational Running Annual Average): The average is calculated for each monitoring location.

MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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

Nephelometric Turbidity Units (NTU): Measurement of the clarity, or turbidity, of the water.

ND (None Detected): Laboratory analysis indicates that the constituent is not present.

ppb (Parts per Billion): Corresponds to one part substance in one billion parts of water.

ppm (Parts per Million): Corresponds to one part substance in one million parts of water

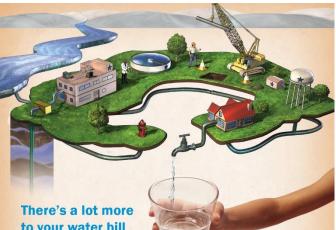
pCi/L (Picocuries per Liter): A measure of the radioactivity in water.

RUL: Recommended upper limit

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

Water Quality Statement

The data presented in the Table of Detected Contaminants is the same data collected to comply with EPA and New Jersey state monitoring and testing requirements. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the levels set by the EPA to protect public health. To assure high quality water, individual water samples are taken each year for chemical, physical and microbiological tests. Tests are done on water taken at the source, from the distribution system after treatment and, for lead and copper monitoring, from the customer's tap. Testing can pinpoint a potential problem so that preventative action may be taken. 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. Our system has received monitoring waivers for synthetic organic chemicals and asbestos.



to your water bill than just water.

When you turn on the tap, it's easy to see what your water bill buys. What's not as easy to see is what it takes to bring that water to your home. The miles of pipeline hidden below the ground. The facilities that draw water from the source. The plant where it's treated and tested. The scientists, engineers, and maintenance crews working around the clock to make sure that water is always there when you need it. Your water payments are helping to build a better tomorrow by supporting needed improvements that will keep water flowing for all of us-today and well into the future. All for less than a penny a gallon.



WE CARE ABOUT WATER. IT'S WHAT WE DO. FIND OUT WHY YOU SHOULD, TOO, at amwater.com.

Vulnerable Populations Statement

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 (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

Mansfield System – PWSID# NJ2116003

Table of Detected Contaminants - 2019

Towns Served By This System: Mansfield, Port Murray

Those regulated substances not listed in this table were not found in the treated water supply.

Regulated Substances

Contaminant	Unit	MCL	MCLG	Range Detected	Highest Detected Level	Compliance Achieved	Typical Source				
Disinfectant By-products											
Total Trihalomethanes (TTHM) ²											
DBP2-1 ppb 80		NA	NA	27 1 YES		By-product of drinking water disinfection					
Total Haloacetic Acids (HAA5)											
DBP2-1 ppb 60		60	NA	NA	5 ¹	YES	By-product of drinking water disinfection				
Disinfectants											
Chlorine ppm MRDL = 4.0		MRDL = 4.0	MRDLG = 4.0	0.16 - 0.83	1.2 ³	YES	Water additive used to control microbes				
Inorganic Contaminants		L									
Nitrate ⁴ ppm 10		10	10	1.6 - 6.0	6.0	YES	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits				
Radiological Contaminan	ts (2015)	-									
Alpha Emitters ^{5, 8}	pCi/L	15	0	2.8 - 3.4	3.1	YES	Erosion of natural deposits				
Tap water samples were	collected	for lead and copp	er analysis from	homes in the service	area						
Lead and Copper	Unit	Action Level 6	MCLG	Amount Detected (90th Percentile) ⁷	Compliance Achieved	Number of samples above action level	Typical Source				
Lead (2018) ⁸	ppb	15	0	2 YES 0		Corrosion of household plumbing systems					
Copper (2018) ⁸	ppm	1.3	1.3	0.1	YES	0	Corrosion of household plumbing systems; Erosion of natural deposits				

¹The highest-level detected result represents the highest locational running annual average (LRAA) calculated from individual sites.

² Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

³ Highest Detected Level is the maximum level detected at the point of entry. Range indicates the values detected in the distribution system.

⁴ 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.

⁵ Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

⁶ Action Level: The concentration of a contaminant which, if exceeded, triggers a treatment technique or other requirement, which a water system must follow.

⁷ 90 percent of the samples tested below the indicated value.

⁸ The state of New Jersey allows us to monitor for some substances less than once per year because the concentrations of these substances do not change frequently. Some of our data, though representative, is more than one year old.

Secondary Contaminants - Mansfield System

	Unit	RUL	Range Detected	Highest Detected Level	Typical Source
Aluminum	ppm	0.20	NA	0.01	Erosion of natural deposits
Chloride	ppm	250	120 - 187	187	Erosion of natural deposits
Sodium ¹	ppm	50	61 - 74	74	Erosion of natural deposits

¹ For healthy individuals, the Sodium intake from water is not important, because a much greater intake of Sodium takes place from salt in the diet. However, Sodium levels above the recommended upper limit may be a concern to individuals on a Sodium-restricted diet.

Additional Unregulated Substances

Unregulated contaminants are those for which the EPA 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. Our results are available upon request. For testing conducted within our service area, the following substances were found.

Parameter	Units	Highest Level Detected	Range Detected	Typical Source
Perfluorooctanesulfonic acid (PFOS)	ppb	0.006	ND - 0.006	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorooctanoic Acid (PFOA)	ррb	0.004	ND - 0.004	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire - fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films

NJDEP Water Conservation Message...Because Remember, Every Drop Counts

