

## 2018 Annual

# **Water Quality Report**

Coastal North System PWS ID: NJ1345001



#### 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.

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 you can be assured that your drinking water is of the highest standards.

Our team of experts continuously monitor, maintain and upgrade our facilities to ensure that they operate efficiently and meet all regulatory standards. This requires investing millions 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 \$330 million in 2018 alone to improve our water treatment and pipeline systems.

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 U.S. 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 2018. If you have any questions, I encourage you to visit the Water Quality page of our website at <u>www.newjerseyamwater.com</u>, or call our Customer Service Center at 800-272-1325. Sincerely,

Cherr

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.

આ અહેવાલ માં તમારા પોવાના પાણી વિષે આગત્ય ની ભાગમરી આપવામાં આવી છે ઓનો અનુવાદ કરો ચલપા જેને સમજણ પડતી છોય તેની આપે વાત કરો

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。

이 보그서에는 귀하께서 사용하고 계시는 식수에 관한 정보가 들어있습니다. 만약에 이해를 못하시면 누군가에게 번역을 의퇴하십시오.

#### 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.



#### Partnership for Safe Drinking Water Program

New Jersey American Water is a member of the Environmental Protection Agency (EPA) Partnership for Safe Water Program (an association of water utilities and government) which is committed to voluntarily providing drinking water of a quality far better than required by federal regulations. The Partnership recognized New Jersey American Water for our commitment to provide the best water quality by presenting the prestigious "Director's Award" for our surface water treatment plant in Tinton Falls (Monmouth County) and in Neptune (Monmouth County). These plants once again earned the "Director's Award" in 2018 under the Partnership for Safe Water program administered by the U.S. EPA, New Jersey Department of Environmental Protection, and other water related organizations. The award honors water utilities for achieving operational excellence, by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards.

#### **About New Jersey American Water**

New Jersey American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high- quality and reliable water and/or wastewater services to approximately 2.7 million people. For more information, visit <u>www.newjerseyamwater.com</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 7,100 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 13 million people in 46 states and Ontario, Canada. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit <u>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/njaw

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: (973) 648-2350 • Two Gateway Center, Newark, NJ 07102

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

Your drinking water comes from a blend of sources that may include:

#### Coastal North System - PWSID # NJ1345001

Shrewsbury area of system-Groundwater from the Potomac-Raritan-Magothy Aquifer (PRM) and surface water from the Glendola Reservoir, the Manasquan River/Reservoir, the Shark River, and the Swimming River/Reservoir.

Lakewood/Howell area of system-14 wells, 1 surface water supply. This system's source water comes from the Englishtown aquifer, Kirkwood-Cohansey aquifer, Mount Laurel-Wenonah aquifer, Potomac-Raritan-Magothy aquifer, upper Potomac-Raritan-Magothy aquifer, and Vincentown aquifer.

Ocean County area of system-5 wells and 1 purchased ground water source. This system's source water comes from the Englishtown aquifer system, Potomac-Raritan-Magothy aquifer, and upper Potomac-Raritan-Magothy aquifer. Also, bulk transfer of surface water from Jumping Brook Treatment Plant.

Ortley Beach/Pelican Island area of the system- This system can purchase water from the Lavallette Water Dept., and Seaside Heights Water Department. Also, bulk transfer of surface water from Jumping Brook Treatment Plant.

#### Protecting Your Water Source What is S.W.A.P.

SWAP (Source Water Assessment Program) 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 — Coastal North

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 www.state.nj.us/dep/swap/ or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

#### **Contaminant Categories**

DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of the 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 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, DEP 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 has an important role in source water protection. 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 by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

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#### **Lead Education Statement**

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. 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. 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. For more information, please review our Lead and **Drinking Water Fact Sheet** 

#### https://amwater.com/njaw/water-quality/lead-and-

drinking-water. 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.

#### Unregulated Contaminant Monitoring Rule 3 (UCMR3)

During 2013, 2014 and 2015 our Company participated in the Unregulated Contaminant Monitoring Rule. 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 in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. For testing conducted, the substance found are listed in the table further below.

#### 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.

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-SOS-RADON.

#### **Do I Need to Take Special Precautions?**

To ensure that tap water is safe to drink, the U.S. 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 standard. Those 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 percent 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.

**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

**NTU (Nephelometric Turbidity Units):** 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

**TT (Treatment Technique):** 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 U.S. Environmental Protection Agency 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 well 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

#### **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 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).

#### Coastal North System – PWS ID# NJ1345001 Table of Detected Contaminants – 2018

Towns Served by this system: Shrewsbury area of system-Aberdeen | Allenhurst | Asbury Park | Bradley Beach | Colts Neck in part | Deal | Eatontown | Elberon | Fair Haven | Highlands Borough | Holmdel | Interlaken | Little Silver | Loch Arbor | Long Branch | Middletown | Monmouth Beach | Neptune | Neptune City | Ocean Grove | Oceanport | Ocean Township | Red Bank | Rumson | Sea Bright | Shrewsbury Borough | Shrewsbury Township | Tinton Falls | Wanamassa | West Long Branch | Lakewood/Howell area of system-Freehold in part | Howell Township | Lakewood | Ocean County area of system-Bay Head | Brick Township in part | Dover in part | Lavallette in part | Mantoloking | Ortley Beach | Pelican Island

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

#### **Regulated Substances 1**

Contaminant	Units	MCL	MCLG	Range Detected	Highest Level Detected	Compliance Achieved	Typical Source
Inorganic Chemicals							1
Total Coliform	cfu	Coliform detected no more than 5% of monthly samples	0	NA	0.05 % <sup>14</sup>	Yes	Naturally present in environment
Fluoride <sup>2</sup>	ppm	2	2	ND to 0.87	0.87	Yes	Erosion of natural deposits; Water additive which promotes strong teeth
Nitrate	ppm	10	10	ND to 1.68	1.68	Yes	Runoff from fertilizer use; Industrial or domestic wastewater discharges; Erosion of natural deposits
Chromium	ppb	100	100	ND to 0.1.4	1.4 <sup>13</sup>	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Treatment By-Products S	tage-2						
Total Trihalomethanes [TTHMs Site DBP2-1	ppb	80	NA	44.5 to 77.5	62.65 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-2	ppb	80	NA	43.0 to 73.1	59.20 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-3	ppb	80	NA	35.4 to 110	77.78 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-4	ppb	80	NA	38.0 to 100	73.58 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-5	ppb	80	NA	19.0 to 71.1	41.0 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-6	ppb	80	NA	35.4 to 86.5	57.03 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-7	ppb	80	NA	39.7 to 81.8	60.65 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-8	ppb	80	NA	4.0 to 108.7	59.93 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-9	ppb	80	NA	36.4 to 99.0	70.00 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-10	ppb	80	NA	26.7 to 75.1	44.88 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-11	ppb	80	NA	41.9 to 71.0	59.18 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-12	ppb	80	NA	41.4 to 74.7	59.80 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-1	ppb	60	NA	11.0 to 75.0	29.23 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-2	ppb	60	NA	9.0 to 61.0	25.28 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-3	ppb	60	NA	9.7 to 18.6	14.35 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-4	ppb	60	NA	11.5 to 26.7	17.70 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-5	ppb	60	NA	8.0 to 50.0	21.75 <sup>3</sup>	Yes	By-product of drinking water disinfection

Total Haloacetic Acids [THAA5] Site DBP2-6	ppb	60	NA	10.0 to 48.9	21.40 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-7	ppb	60	NA	6.0 to 58.8	23.25 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-8	ppb	60	NA	0 to 34.6	22.18 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-9	ppb	60	NA	11.4 to 19.2	15.75 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-10	ppb	60	NA	7.0 to 50.7	20.48 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-11	ppb	60	NA	9.0 to 58.2	25.73 <sup>3</sup>	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-12	ppb	60	NA	8.9 to 58.8	24.00 <sup>3</sup>	Yes	By-product of drinking water disinfection
Turbidity							
Turbidity 12	ntu	TT	NA	0.01 to 0.27	0.27	Yes	Soil runoff
Treatment By-products P	recursor Re	emoval				•	·
Total Organic Carbon	ppm	TT	NA	0.72 to 2.84	2.84	Yes	Naturally present in the environment
Disinfectants		-		-		-	
Chloramines	ppm	MRDL = 4	MRDLG = 4	0.06 to 2.75	1.374	Yes	Water additive used to control microbes
Chlorite <sup>10</sup>	ppm	1	0.8	ND to 0.34	0.34	Yes	By-product of drinking water disinfection
Chlorine Dioxide 11	ppb	MRDL = 800	MRDLG = 800	50 to 530	530	Yes	Water additive used to control microbes
Radiological Substances							
Alpha Emitters <sup>9</sup>	pCi/L	15	0	ND to 7.4	7.4	Yes	Erosion of natural deposits
Combined Radium 226 and 228	pCi/L	5⁵	0	ND to 2.71	2.71	Yes	Erosion of natural deposits
Organics	-						
Xylene <sup>15</sup>	ppm	10	N/A	ND to 0.0007	0.0007	Yes	Discharge from chemical plants and Other industrial activities
Styrene <sup>16</sup>	ppb	100	0	ND to 0.5	0.5	Yes	Discharge from rubber plastic factory, leaching from landfills.
Tap water samples were	collected f	or lead and cop	per analysis from	homes in the servic	e area		
Contaminant	Units	Action Level	MCLG	Amount Detected (90 <sup>th</sup> %tile)	Homes Above Action Level	Compliance Achieved	Typical Source
Copper 2018	ppm	1.3	1.3	0.132	none	Yes	Corrosion of household plumbing systems
Lead 2018	ppb	15	0	5	2	Yes	Corrosion of household plumbing systems

### **Secondary Contaminants**

Contaminant	Units	RUL	Amount Detected
Iron <sup>6</sup>	ppm	0.3	ND to 0.33 <sup>13</sup>
Manganese 7	ppm	0.05	ND to 0.045 <sup>13</sup>
Sodium <sup>8</sup>	ppm	50	3.8 to 62.7 <sup>13</sup>
Hardness	ppm	250	52 to 120 <sup>13</sup>
Aluminum	ppm	0.05	ND to 0.15 <sup>13</sup>

## Unregulated Contaminant Monitoring 13

Contaminant	Units	NJDEP Guidance Level	Range Detected	Highest Level Detected	Use or Environmental Source
Chlorate	ppb	NA	ND to 760	760	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Hexavalant Chromium	ppb	NA	ND to 0.53	0.53	Major sources of Hexavalent Chromium (Chromium-6) in drinking water are discharges from steel and pulp mills, and erosion of natural deposits of chromium-3. Hexavalent Chromium is not currently regulated as an individual substance. NJ American Water voluntarily performed this monitoring based on recommendations from USEPA. For more information on Hexavalent Chromium (Chromium-6), please visit our web site.

Strontium	ppb	NA	37.6 to 508.5	508.5	Naturally occurring element; commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
1,4-Dioxane	ppb	NA	ND to 0.50	0.50	Used as a solvent in manufacturing and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.

Unregulated Contaminant Monitoring Rule										
New Jersey American Water established drinking water st contaminants in drinking wat	participa andards er and	ated in the Unre s. The purpose whether regula	egulated Con of unregulate tion is warrai	taminant Monitor ed contaminant n nted. For testing o	ring Rule. Unregulated contaminants are those for which the EPA has not nonitoring is to assist the EPA in determining the occurrence of unregulated conducted in the Coastal North System, the following substances were found. <sup>1</sup>					
Contaminant	Unit	MRL	Highest Level Detected	Range Detected	Use or Environmental Source					
				Metals - I	ist AM1					
Manganese	ppb		73	ND to 73	Naturally present in the environment; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical					
Germanium	ppb		0.32	ND to 0.32						
			Brominat	ed Haloacetic Aci	d (HAA) Group – List AM 2					
HAA6Br Group	I				By-product of drinking water disinfection					
Bromochloroacetic Acid	ppb	N/A	4.1	1.5 to 4.1						
Bromodichloroacetic Acid	ppb	N/A	3.6	0.93 to 3.6						
Dibromoacetic Acid	ppb	N/A	0.85	ND to 0.85						
Monobromoacetic Acid	ppb	N/A	0.55	ND to 0.55						
Tribromoacetic Acid	ppb	N/A	ND	ND						
Chlorodibromoacetic Acid	ppb	N/A	2.5	ND to 2.5						
HAA9 Group	•				By-product of drinking water disinfection					
Bromochloroacetic Acid	ppb	N/A	4.1	1.5 to 4.1						
Bromodichloroacetic Acid	ppb	N/A	3.6	0.93 to 3.6						
Dibromoacetic Acid	ppb	N/A	0.85	ND to 0.85						
Monobromoacetic Acid	ppb	N/A	0.55	ND to 0.55						
Tribromoacetic Acid	ppb	N/A	ND	ND						
Chlorodibromoacetic Acid	ppb	N/A	2.5	ND to 2.5						
Dichloroacetic Acid	ppb	N/A	20	2.9 to 20						
Monochloroacetic Acid	ppb	N/A	ND	ND						
Trichloroacetic Acid	ppb	N/A	14	2.9 to 14						

<sup>1</sup>Under a waiver granted by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water. The SDWA regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for synthetic organic chemicals.

<sup>2</sup> Fluoride is added to the water (Shrewsbury and Ocean County areas of Coastal North System).

<sup>3</sup> This level represents the highest annual quarterly Locational Running Average calculated from the data collected.

<sup>4</sup> This level represents the highest annual quarterly Average calculated from the data collected.

 $^5$  Radium 226 and Radium 228 have a combined MCL of 5 pCi/L.

<sup>6</sup>The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

<sup>7</sup> The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from high levels which would be encountered in drinking water.

<sup>8</sup> 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 of concern to individuals on a sodium restricted diet.

<sup>9</sup> Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

<sup>10</sup> Some infants and young children who drink water containing chlorite in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

<sup>11</sup>Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.

<sup>12</sup>Turbidity is a measure of the cloudiness of the water. 100% of the turbidity readings were below the treatment technique requirement of 0.3 ntu. We monitor it because it is a good indicator of the effectiveness of our filtration system.

<sup>13</sup> 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.

<sup>14</sup> Maximum percentage of positive samples collected in any one month.

<sup>15</sup> Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system indicator of the effectiveness of our filtration system.

<sup>16.</sup> Some people who drink water containing xylenes in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.

#### **Our Water Research Efforts**

*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. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems, please contact your personal health care provider.

The U.S. EPA issued a rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. To comply with this rule, New Jersey American Water once again began conducting 24 consecutive months of monitoring for *Cryptosporidium* in our raw water sources starting in in 2015. The monitoring to date indicates the presence of these organisms in the source water. The samples were collected from the source before the water was processed through our treatment plants. We continued monitoring until April 2017. The data collected is presented in the Source Water Monitoring table below.

#### **Source Water Monitoring**

Contaminant	Swimming River source water	Jumping Brook source water	Oak Glen source Water	
Cryptosporidium, Oocysts/L	ND - 0.100	ND	ND	Microbial pathogens found in surface
Giardia, Cysts/L	0 - 0.558	0 - 0.089	0 - 0.558	waters throughout the United States.



#### There's a lot more 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.

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

