



# 2014 Annual Water Quality Report

Hunterdon County  
Middlesex County  
Somerset County

Mercer County  
Morris County  
Union County

Raritan System

PWS ID: NJ2004002



NEW JERSEY  
AMERICAN WATER

## A Message from the New Jersey American Water President

### To Our Valued Customer:

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.

This is an exceptional value when you consider the facilities and technology needed to draw water from the source and treat it, along with miles and miles of pipeline hidden below the ground to bring water to your tap. What's more, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure that quality water is always there when you need it.

Delivering reliable, high-quality water service also requires significant investment to maintain and upgrade aging facilities. In 2014 alone, we invested approximately \$238 million in system improvements across the state.

Because water is essential for public health, fire protection, economic development and overall quality of life, New Jersey American Water's employees are committed to ensuring that quality water keeps flowing not only today but well into the future. We hope you agree that your water service is worth every penny.

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 2014.

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.

### 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  
1025 Laurel Oak Road  
Voorhees, NJ 08043  
[www.amwater.com/njaw](http://www.amwater.com/njaw)

Sincerely,

William M. Varley

## Water Information Sources

- New Jersey Department of Environmental Protection, Bureau of Safe Drinking Water: (609) 292-5550 • [www.state.nj.us/dep](http://www.state.nj.us/dep)
- New Jersey Board of Public Utilities: 44 S Clinton Avenue, Trenton, NJ 08625 1-800-624-0241 • [www.state.nj.us/bpu](http://www.state.nj.us/bpu)
- US Environmental Protection Agency: [www.epa.gov/safewater](http://www.epa.gov/safewater)
- Safe Drinking Water Hotline: 1-800-426-4791
- American Water Works Association: [www.awwa.org](http://www.awwa.org)
- Centers for Disease Control and Prevention: [www.cdc.gov](http://www.cdc.gov)

## 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 2.6 million people.

## About American Water

Founded in 1886, American Water is the largest publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs approximately 6,400 dedicated professionals who provide drinking water, wastewater and other related services to an estimated 15 million people in more than 45 states and parts of Canada. More information can be found by visiting [www.amwater.com](http://www.amwater.com).

## Partnership for Safe Water

In 2010, our surface water plant in Bridgewater (Somerset County) was awarded the prestigious "Ten-Year Director's Award" 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.



## Where Your Water Comes From

Your water comes from a public community water system consisting of 98 wells, 7 surface water intakes, 1 purchased ground water source, and 1 purchased surface water source. Water is purchased from East Windsor MUA and Newark Water Co.

Source water comes from Millstone River, Raritan River, Delaware & Raritan Canal and the following aquifers: Brunswick, Stockton, Basalt, Passaic and Glacial Drift.

## 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.

Susceptibility Ratings for New Jersey American Water

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.

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 Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

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.

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

## 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, those 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.

## 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, 2014. 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 2014. We are committed to delivering the best 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 all 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 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.

## 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, Radon was detected less than 100 pCi/L in our surface water supply, which makes up 90 percent of our capacity and less than 100 pCi/L to 1916 pCi/L in our wells, which make up the other 10 percent. 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.

## 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 storm water 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 storm water 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 storm water 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.

#### **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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

#### **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.

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

#### **How Do I Read the Table of Detected Contaminants?**

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 shaded column marked Range shows the highest and lowest test results for the year. The column marked Highest Level Detected shows the highest test results during the year. Major Sources in Drinking Water shows where this substance usually originates. Compare the Range values with the MCL column. To be in compliance, the Maximum Detected Level must be lower than the MCL standard.

Footnotes and the definitions below will help you interpret the data presented in the Table of Detected Contaminants.

**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.

**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.

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

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

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

**Picocuries per Liter (pCi/L):** 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 Facts

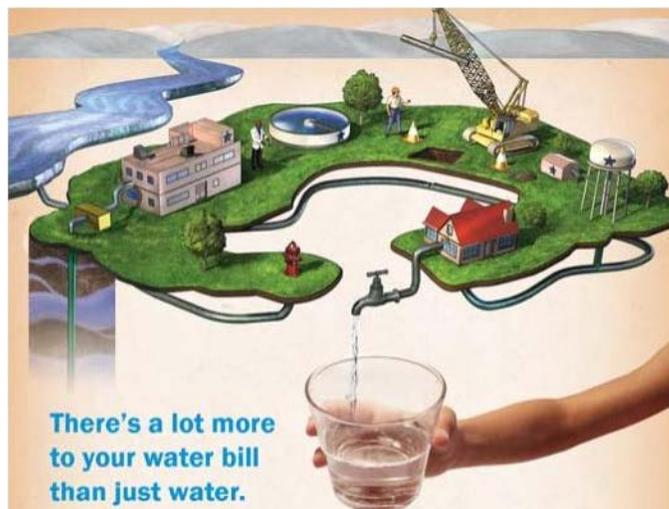
The data presented in the Table of Detected Contaminants is the same data collected to comply with U.S. Environmental Protection Agency and New Jersey state monitoring and testing requirements.

To assure high quality water, individual water samples are taken each year for chemical, physical and microbiological tests. Tests are completed 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 preventive 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 waiver 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).



**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.

 **AS FEW AS 2 CENTS PER GALLON**

**WE CARE ABOUT WATER. IT'S WHAT WE DO.**  
**FIND OUT WHY YOU SHOULD, TOO, at [amwater.com](http://amwater.com).**

© 2012 American Water. "American Water" and the star logo are the registered trademarks of American Water Works Company, Inc. All rights reserved.

## Water Quality Results – Table of Detected Contaminants – 2014 Regulated Substances

Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Compliance Achieved	Major Sources in Drinking Water
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	positive monthly samples	5%	0	0.7% <sup>1</sup>	NA	Yes	Naturally present in the environment
<b>Turbidity</b>							
Turbidity <sup>2</sup>	NTU	TT = 1 NTU	NA	0.2	0.1 - 0.2	Yes	Soil runoff
		TT = percent of samples < 0.3 NTU	NA	100%	NA	Yes	
<b>Treatment By-Products Precursor Removal</b>							
Total Organic Carbon	ppm	TT	NA	3.2	1.0 - 3.2	Yes	Naturally present in the environment
<b>Inorganic Contaminants</b>							
Fluoride <sup>3</sup>	ppm	2	2	1	ND - 1.0	Yes	Erosion of natural deposits; Water additive that promotes strong teeth
Nitrate <sup>4</sup>	ppm	10	10	4	0.6 - 4	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic	ppb	5	5	2	ND - 2	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.3	ND - 0.3	Yes	Discharge or drilling wastes; Discharge of metal refineries; Erosion of natural deposits
<b>Radiological Contaminants</b>							
Alpha emitters <sup>5</sup>	pCi/L	15	0	4	ND - 4	Yes	Erosion of natural deposits
<b>Disinfectants</b>							
Chloramines <sup>6</sup>	ppm	MRDL = 4 ppm	MRDLG = 4	1.2	0.5 - 1.3	Yes	Water additive used to control microbes
<b>Disinfectant By-Products</b>							
Bromate	ppb	10	0	6	ND - 6	Yes	By-product of drinking water disinfection

### Disinfectant By-Products - Stage 2

Contaminant	Unit	MCL	MCLG	LRAA <sup>7</sup>	Range	Compliance Achieved	Major Sources in Drinking Water
<b>Total Trihalomethanes (TTHM)</b>							
3	ppb	80	NA	17	2 - 29	Yes	By-product of drinking water disinfection
5	ppb	80	NA	52	26 - 67	Yes	By-product of drinking water disinfection
8	ppb	80	NA	51	25 - 73	Yes	By-product of drinking water disinfection
12	ppb	80	NA	40	17 - 62	Yes	By-product of drinking water disinfection
26	ppb	80	NA	51	24 - 75	Yes	By-product of drinking water disinfection
27	ppb	80	NA	48	27 - 65	Yes	By-product of drinking water disinfection
35	ppb	80	NA	48	28 - 64	Yes	By-product of drinking water disinfection
36	ppb	80	NA	49	24 - 71	Yes	By-product of drinking water disinfection
SSS-15	ppb	80	NA	34	17 - 51	Yes	By-product of drinking water disinfection
SSS-24	ppb	80	NA	42	34 - 58	Yes	By-product of drinking water disinfection
SSS-6	ppb	80	NA	46	26 - 49	Yes	By-product of drinking water disinfection
SSS-8	ppb	80	NA	24	20 - 33	Yes	By-product of drinking water disinfection
DBP2-1	ppb	80	NA	55	28 - 76	Yes	By-product of drinking water disinfection
DBP2-2	ppb	80	NA	55	29 - 78	Yes	By-product of drinking water disinfection
<b>Total Haloacetic Acids (THAA5)</b>							
3	ppb	60	NA	4	ND - 10	Yes	By-product of drinking water disinfection
5	ppb	60	NA	32	24 - 40	Yes	By-product of drinking water disinfection
8	ppb	60	NA	34	27 - 40	Yes	By-product of drinking water disinfection
12	ppb	60	NA	24	18 - 33	Yes	By-product of drinking water disinfection
26	ppb	60	NA	34	26 - 47	Yes	By-product of drinking water disinfection
27	ppb	60	NA	28	12 - 36	Yes	By-product of drinking water disinfection
35	ppb	60	NA	26	12 - 37	Yes	By-product of drinking water disinfection
36	ppb	60	NA	32	28 - 43	Yes	By-product of drinking water disinfection
SSS-15	ppb	60	NA	20	16 - 28	Yes	By-product of drinking water disinfection
SSS-24	ppb	60	NA	9	3 - 21	Yes	By-product of drinking water disinfection
SSS-6	ppb	60	NA	32	25 - 38	Yes	By-product of drinking water disinfection
SSS-8	ppb	60	NA	15	8 - 23	Yes	By-product of drinking water disinfection
DBP2-1	ppb	60	NA	25	19 - 33	Yes	By-product of drinking water disinfection
DBP2-2	ppb	60	NA	30	22 - 42	Yes	By-product of drinking water disinfection

## Tap water samples were collected for lead and copper analysis from homes in the service area

Lead & Copper Monitoring	Units	Action Level <sup>8</sup>	MCLG	Number of Samples	90th Percentile <sup>9</sup>	Number of Samples Above Action Level	Compliance Achieved	Typical Source
Copper (2013)	ppm	1.3	1.3	51	0.5	0	Yes	Corrosion of household plumbing systems
Lead (2013)	ppb	15	0	51	5	3	Yes	Corrosion of household plumbing systems; erosion of natural deposits

<sup>1</sup>Maximum percentage of positive samples collected in any one month.

<sup>2</sup>100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

<sup>3</sup>Fluoride is added to the water at therapeutic levels (0.6 – 1.0 ppm) in certain areas. Please call us for more information about fluoride levels in your area.

<sup>4</sup>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.

<sup>5</sup>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>6</sup>Highest level detected is the maximum annual running average. Range indicates the monthly averages detected.

<sup>7</sup>Compliance is based on the Locational Running Annual Average (LRAA). Results in the table show the average of the 4 quarters of 2014.

<sup>8</sup>Action Level: The concentration of a contaminant which, if exceeded, triggers a treatment technique or other requirement, which a water system must follow.

<sup>9</sup>Ninety percent of the samples tested below the indicated value.

## Secondary Contaminants

Contaminant	Unit	Recommended Upper Limit	Range Detected	Highest Detected Level	Typical Source
Aluminum	ppm	0.2	ND – 0.02	0.02	Erosion of natural deposits
Manganese	ppm	0.05	ND – 0.05	0.05	Erosion of natural deposits
Sodium <sup>1</sup>	ppm	50	14 - 82	82	Erosion of natural deposits

<sup>1</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.

## Unregulated Contaminant Monitoring Rule

New Jersey American Water 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 in the Raritan System, the following substances were found.

Contaminant <sup>1</sup>	Unit	NJDEP Guidance Level	Highest Level Detected	Range Detected	Use or Environmental Source
Perfluorooctanoic Acid (PFOA)	ppb	0.04	0.049	ND - 0.049	PFOA is a man-made chemical used in the manufacture of fluoropolymers. With non-stick and stain-resistant properties, fluoropolymers have wide application in common household products such as cookware, carpet and all-weather clothing. There is currently no regulatory limit established for PFOA in drinking water. However, in February 2007 the NJ Dept. of Environmental Protection (NJDEP) issued a preliminary guidance level of 0.04 ppb. In order to assist the NJDEP in assessing the occurrence of this substance in NJ, New Jersey American Water began to monitor for PFOA in some of its systems. We are sharing the results in this report because we want to educate our customers about the quality of their drinking water. This proactive approach reinforces our continuing commitment to protect public health and provide quality drinking water and reliable service. For more information on PFOA, contact NJDEP Bureau of Safe Drinking Water at (609) 292-5550.
Hexavalent Chromium	ppb	NA	0.26	ND - 0.26	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.
N-nitrosopyrrolidine (NPYR)	ppb	NA	0.0033	ND - 0.0033	Nitrosamines can form as intermediates and by-products in chemical synthesis and manufacture of rubber, leather, and plastics; can form spontaneously by reaction of precursor amines with nitrosating agents (nitrate and related compounds), or by action of nitrate-reducing bacteria. Foods such as bacon and malt beverages can contain nitrosamines; there is also evidence that they form in the upper GI tract.

<sup>1</sup>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 our data, though representative, are more than one year old.