



# 2019 Annual Water Quality Report



PWSID  
NJ0719001

## A Message About your Drinking Water

The South Orange Village Water Utility places a strong emphasis on educating customers on the quality of its drinking water.

The test results in this report contain detailed information about the source and quality of your drinking water. We have prepared this report using the data from water quality testing conducted January through December 2019.

Our customers are our top priority, and we are committed to providing you with high quality drinking water and service now and in the years to come.

## Our Commitment to Quality

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 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 1-855-722-7072.

## 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 1-855-722-7072.

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 પીવાના પાણી વિષે  
અગત્ય ની જાણકારી આપવા માં આવી છે.  
અને તે અનુભવ કરો અથવા જેને સમજણ પડતી  
ભાષા તેની સાથે વાત કરો

이 보고서에는 귀하께서 사용하고 계시는 식수에 관한 정보가 들어있습니다.  
만약에 이해를 못하시면 누군가에게 번역을 의뢰하십시오.

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。

## How to Contact Us

Thank you... for allowing us 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 1-855-722-7072 if you have questions:

South Orange Village Water Utility  
Box 371852  
Pittsburgh, PA  
15250-7852  
<http://www.southorange.org/572/Water>

## 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)

**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 Your Municipally Owned Water Utility

South Orange Village Water Utility is a municipally owned water utility that owns all mains, tanks, reservoir and ground water sources that comprise the system. The municipality has contracted the operation and maintenance of the water system to American Water under a 10-year operations and maintenance contract. Separately, the municipality has contracted with New Jersey American Water for supply of bulk water, under a 30-year sales agreement. Both agreements commenced January 1, 2017. Your local municipal government establishes billing rates, system policy, executes capital improvement projects, guides the strategic direction of the water system and is the beneficiary of all customer revenue collected.

## About Your Contracted System Operator and Bulk Water Supplier, 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 [www.amwater.com](http://www.amwater.com) and follow American Water on [Twitter](#), [Facebook](#) and [LinkedIn](#).

## Where Your Water Comes From

Water for the South Orange Village System is purchased from New Jersey American Water – Short Hills System with one ground water source, municipally owned Well 17, located within South Orange Village. The South Orange municipal government made the decision that the use of the Well 17 source be discontinued on November 30, 2018.

### Short Hills System - PWSID # NJ0712001

New Jersey American Water - Short Hills System is a public community water system consisting of 25 wells, 4 surface water intakes, 12 purchased ground water sources, and 3 purchased surface water sources.

Source water comes from the following aquifers and/or surface water bodies: Passaic River, Brunswick aquifer.

The NJ American Water – Short Hills System purchases water from the following water systems: ORANGE, VERONA, SE MORRIS COUNTY UTILITIES AUTHORITY, PVWC/MORRIS COUNTY CONNECTION, NEWARK, MONTCLAIR, MADISON, LIVINGSTON WATER, NEW JERSEY AMERICAN RARITAN SYSTEM, CHATHAM W.D., and PASSAIC VALLEY WATER COMM.

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

### Susceptibility Ratings for New Jersey American Water – Short Hills 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 [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.

Short Hills System	Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection By-Product Precursors		
		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
	Wells - 25	1	21	3	13	12			6	19	17		8	10	11	4		25		25			3	22	
	GUDI - 0																								
	Surface Water Intakes - 4	4			2	2			2	2		4		4				4				4	4		

### Susceptibility Ratings for the South Orange Village 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 [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.

South Orange Village	Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection By-Product Precursors		
		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
	Wells - 1			1		1				1	1			1			1			1				1	
	GUDI - 0																								
	Surface Water Intakes																								

### 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. 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.

## 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 your municipality directly with policy questions or to discuss issues
- Participating in municipal governing body and working group meetings
- Responding to survey requests

## Remember to be Water Smart

Wise water use is an important first step in protecting our water supply. Such measures not only save the supply of our source water but can also save you money by reducing your water bill.

Wise water tips you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can be water smart outdoors as well:

- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.

## 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:** This 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 come from gas stations, urban storm water runoff and septic systems.

**Radioactive Contaminants:** this 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 2015 testing, our water showed radon levels between ND to 2090 pCi/L in the Short Hills 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.

## 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>.

## 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 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.

**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. The South Orange Village System was granted a waiver for Asbestos and Synthetic Organic Contaminants in 2019.

## 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).

## South Orange Village Water System – Table of Detected Contaminants – 2019

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

### Regulated Substances

Location	Unit	MCL	MCLG	Range	LRAA <sup>1</sup>	Compliance Achieved	Typical Source
<b>Disinfectant By-Products – Stage 2 Data</b>							
<b>Total Trihalomethanes (TTHM)<sup>2</sup></b>							
DBP2-1	ppb	80	NA	13 - 24	24	YES	By-product of drinking water disinfection
DBP2-2	ppb	80	NA	35 - 48	45	YES	By-product of drinking water disinfection
DBP2-3	ppb	80	NA	29 - 32	31	YES	By-product of drinking water disinfection
DBP2-4	ppb	80	NA	19 - 33	32	YES	By-product of drinking water disinfection
<b>Total Haloacetic Acids (HAA5)</b>							
DBP2-1	ppb	60	NA	4 - 8	8	YES	By-product of drinking water disinfection
DBP2-2	ppb	60	NA	3 - 14	13	YES	By-product of drinking water disinfection
DBP2-3	ppb	60	NA	6 - 9	9	YES	By-product of drinking water disinfection
DBP2-4	ppb	60	NA	5 - 9	10	YES	By-product of drinking water disinfection
Contaminant	Unit	MCL	MCLG	Range Detected	Highest Detected Level	Compliance Achieved	Typical Source
<b>Disinfectants</b>							
Chlorine	ppm	MRDL = 4	MRDLG = 4	0.1 - 1.2	0.86 <sup>3</sup>	YES	Water additive used to control microbes
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	Positive monthly samples	5% of monthly samples are positive	0	ND to 0.6%	0.6%	YES	Naturally present in the environment
E. coli bacteria	Number of positive samples		0	ND to 1	1	YES *	Human or animal fecal waste
* The Passaic Short Hills system NJ0712001 had one positive E. coli result out of 1826 samples collected in 2019. Follow up sampling including repeat and bracket samples, were all negative. No assessment or corrective action was required under the Revised Total Coliform Rule.							
<b>Inorganic Contaminants</b>							
Barium	ppm	2	2	ND - 0.3	0.3	YES	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Nitrate <sup>4</sup>	ppm	10	10	ND - 1.4	1.4	YES	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Turbidity and Treatment By-Products Precursor Removal</b>							
Total Organic Carbon	%	TT = % Removal or removal ratio	NA	Percent (%) Removal	NA	YES	Naturally present in the environment
				42 - 68 (35 - 45 required)			
Turbidity <sup>5</sup>	NTU	TT = 1 NTU	NA	0.04 - 0.32	0.32	YES	Soil runoff
	%	TT = % of samples <0.3 NTU (min 95% required)	NA	NA	99.99%	YES	Soil runoff

Radiological Contaminants - 2017							
Alpha emitters <sup>6,7</sup>	pCi/L	15	0	ND - 8.32	8.32	YES	Erosion of natural deposits
Combined Radium <sup>6,7</sup>	pCi/L	5	0	ND - 1.15	1.15	YES	Erosion of natural deposits

### Tap water samples were collected for lead and copper analysis from homes within South Orange Village June 1, 2019 to September 30, 2019

Lead and Copper	Unit	Action Level <sup>8</sup>	MCLG	Number of Samples	Amount Detected (90th Percentile) <sup>9</sup>	Compliance Achieved	Number of Samples Above Action Level	Typical Source
Lead	ppb	15	0	33	1	YES	1	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	ppm	1.3	1.3	33	0.306	YES	0	Corrosion of household plumbing systems; Erosion of natural deposits

<sup>1</sup> This level represents the highest locational running annual average calculated from the data collected.

<sup>2</sup> 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.

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

<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> Turbidity is a measure of the cloudiness of the water. Over 99% 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>6</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>7</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>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> 90 percent of the samples tested below the indicated value.

### Secondary Contaminants

Contaminant	Unit	RUL	Range Detected	Highest Detected Level	Typical Source
Aluminum	ppm	0.05	ND - 0.02	0.02	Erosion of natural deposits
Chloride	ppm	250	61 - 82	82	Erosion of natural deposits
Manganese <sup>1</sup>	ppm	0.05	ND - 0.08	0.08	Erosion of natural deposits
Sodium <sup>2</sup>	ppm	50	28 - 50	50	Erosion of natural deposits

<sup>1</sup> The recommended upper limit for Manganese is based on staining of the laundry. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.

<sup>2</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 a concern to individuals on a Sodium-restricted diet.

### 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. The monitoring indicates the presence of these organisms in the source water. The samples were collected from the source before the water was processed through water treatment plants. 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 South Orange Village Water Utility's bulk water provider, NJ American Water, began a second round of source water monitoring in accordance with the requirements of EPA's Long Term 2 Enhanced Surface Water Treatment Rule. The data collected in 2017 is presented in the Source Water Monitoring table below. At this time, based on the results of our *Cryptosporidium* monitoring in 2016 and 2017, there is no indication that additional treatment will be required by the U.S. EPA regulation.

### Source Water Monitoring

Contaminant	Canoe Brook TP source water	Typical Source
<i>Cryptosporidium</i> , Oocysts/L	0 - 0.182	Microbial pathogens found in surface waters throughout the United States.
<i>Giardia</i> , Cysts/L	ND	

## Unregulated Contaminant Monitoring Rule (UCMR)

The South Orange Village Water Utility 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 and DEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. While South Orange Village did not receive water from NJ American Water in 2015, the results are included below for your reference. South Orange Village participated in UCMR4 in 2019, the results are included below.

## Unregulated Substances – South Orange Village

Unregulated Contaminant Monitoring Rule 4 (UCMR4 2019)					
Metals – Assessment Monitoring 1					
Contaminant	Unit	NJDEP Guidance Level	Highest Level Detected	Range	Typical Source
Manganese	ppb	NA	47	2 – 47	Naturally present in the environment; used in steel production, fertilizer, batteries, and fireworks; drinking water and wastewater treatment chemical
Brominated Haloacetic Acid (HAA) Group – Assessment Monitoring 2					
Contaminant	Unit	NJDEP Guidance Level	Highest Level Detected	Range	Typical Source
Bromochloroacetic acid	ppb	NA	4	1 – 5	By-product of drinking water disinfection
Bromodichloroacetic acid	ppb	NA	3	2 - 3	By-product of drinking water disinfection
Chlorodibromoacetic acid	ppb	NA	2	1 – 2	By-product of drinking water disinfection
Dibromoacetic acid	ppb	NA	2	1 – 2	By-product of drinking water disinfection
Dichloroacetic acid	ppb	NA	7	1 - 7	By-product of drinking water disinfection
Monobromoacetic acid	ppb	NA	0.4	0.3 – 0.4	By-product of drinking water disinfection
Trichloroacetic acid	ppb	NA	5	2 - 5	By-product of drinking water disinfection
Brominated Haloacetic Acid (HAA) Group – Assessment Monitoring					
Contaminant	Unit	NJDEP Guidance Level	Highest Level Detected	Range	Typical Source
HAA6Br					
DBP2-1	ppb	NA	9	8 – 9	By-product of drinking water disinfection
DBP2-2	ppb	NA	12	5 – 12	By-product of drinking water disinfection
DBP2-3	ppb	NA	10	7 – 10	By-product of drinking water disinfection
DBP2-4	ppb	NA	10	6 – 10	By-product of drinking water disinfection
HAA9					
DBP2-1	ppb	NA	15	13 - 15	By-product of drinking water disinfection
DBP2-2	ppb	NA	24	9 - 24	By-product of drinking water disinfection
DBP2-3	ppb	NA	18	11 - 18	By-product of drinking water disinfection
DBP2-4	ppb	NA	18	10 - 18	By-product of drinking water disinfection

## Additional Unregulated Substances – NJ American Water - Canoe Brook Water Treatment Plant Effluent

Unregulated Contaminant Monitoring (2013 - 2019) NJ 4  
 NJ American Water – Canoe Brook Plant Effluent

Parameter	Years Sampled	Units	Highest Level Detected	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	2019	ppb	0.0098	ND - 0.0098	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
Perfluorooctanesulfonic Acid (PFOS)	2019	ppb	0.0071	ND - 0.0071	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; U.S. manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally
Strontium	2019	ppm	0.3	0.2 - 0.3	Naturally occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	2019	ppb	4	ND - 4	Naturally occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

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

**6 SIMPLE STEPS TO SAVE WATER...BECAUSE REMEMBER, EVERY DROP COUNTS**

Due to much lower than normal rainfall, New Jersey's water supply is dwindling. You can do your part to help avoid a drought emergency by taking these six simple steps to save water.

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Don't let faucets run when brushing your teeth, shaving, or washing the dishes. Just turning off the water while you brush can save 200 gallons a month.
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Run washing machines and dishwashers only when they are full, or select the properly sized wash cycle for the current laundry load.
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Install water-saving showerheads and faucet aerators in the bathroom and kitchen (available at most home improvement stores and some supermarkets.)
- 

Fix any leaking faucets –one drop every 2 seconds from a leaky faucet wastes 2 gallons of water every day – that's water – and money – down the drain.
- 

Don't wash your car at home – a car wash uses much less water and recycles it, too.
- 

With the end of the growing season, be sure to turn off automatic lawn and garden sprinkler systems.



 For more detailed information on how you can conserve water in and outside your home, visit [njdrought.org](http://njdrought.org).  
**Remember...every drop counts.**