



Coastal North: Monmouth System – PWS ID# NJ1345001

Table of Detected Contaminants – 2020

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

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							
Total Coliform	cfu	Coliform detected no more than 5% of monthly samples	0	NA	0 % ¹⁰	Yes	Naturally present in environment
Fluoride ²	ppm	2	2	ND to 0.76	0.76	Yes	Erosion of natural deposits; Water additive which promotes strong teeth
Nitrate	ppm	10	10	0.14 to 0.62	0.62	Yes	Runoff from fertilizer use; Industrial or domestic wastewater discharges; Erosion of natural deposits
Treatment By-Products Stage-2							
Contaminant	Units	MCL	MCLG	Range Detected	LRAA ³	Compliance Achieved	Typical Source
Total Trihalomethanes [TTHMs] Site DBP2-1	ppb	80	NA	36.2 to 64.1	44.35	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-2	ppb	80	NA	35.6 to 63.0	48.83	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-3	ppb	80	NA	33.5 to 77.5	51.38	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-4	ppb	80	NA	31.0 to 62	47.18	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-6	ppb	80	NA	32.0 to 59.3	42.48	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-7	ppb	80	NA	29.4 to 40.2	36.23	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-9	ppb	80	NA	28.0 to 66.0	48.60	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-11	ppb	80	NA	32.4 to 60.0	42.38	Yes	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] Site DBP2-12	ppb	80	NA	36.0 to 56.3	43.80	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-1	ppb	60	NA	7.6 to 16.7	10.85	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-2	ppb	60	NA	2.7 to 15.8	9.98	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-3	ppb	60	NA	5.0 to 16.1	10.38	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-4	ppb	60	NA	6.0 to 16	11.0	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-6	ppb	60	NA	6.7 to 13.8	10.63	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-7	ppb	60	NA	5.0 to 18.5	10.58	Yes	By-product of drinking water disinfection

Total Haloacetic Acids [THAA5] Site DBP2-9	ppb	60	NA	6.8 to 10.6	9.50	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-11	ppb	60	NA	8.0 to 17.1	11.88	Yes	By-product of drinking water disinfection
Total Haloacetic Acids [THAA5] Site DBP2-12	ppb	60	NA	10.9 to 16.0	12.73	Yes	By-product of drinking water disinfection
Contaminant	Units	MCL	MCLG	Range Detected	Highest Level Detected	Compliance Achieved	Typical Source
Turbidity ^{5,9}							
Turbidity 2020	ntu	TT = 1 NTU	NA	0.01 to 0.29	0.29	Yes	Soil runoff
		TT = percent of Samples <0.3 ntu	NA	100%	NA		
Treatment By-products Precursor Removal							
Total Organic Carbon	MCLG	Percent (%) Removal Range	Percent (%) Removal Required	Removal Ratio Range	RAA (%) Removal Ration	Compliance Achieved	Typical Source
	RAA (%) Removal Ratio	14.1% to 56.52%	35%	0.91 to 1.82	1.09 to 1.29 ¹¹	Yes	Naturally present in the environment
Disinfectants							
Tap water samples were collected for lead and copper analysis from homes in the service area							
Contaminant	Units	Action Level	MCLG	Amount Detected (90th %tile)	Homes Above Action Level	Compliance Achieved	Typical Source
Copper 2020	ppm	1.3	1.3	0.23	none	Yes	Corrosion of household plumbing systems
Lead 2020	ppb	15	0	3	none	Yes	Corrosion of household plumbing systems

Secondary Contaminants 2020

Contaminant	Units	RUL	Amount Detected
Iron ⁶	ppm	0.3	ND to 0.02
Manganese ⁷	ppm	0.05	ND
Sodium ⁸	ppm	50	27.4 to 46
Hardness	ppm	250	76 to 84
Aluminum	ppm	0.05	ND

Unregulated Contaminant Monitoring 2020

Contaminant	Units	NJDEP Guidance Level	Range Detected	Highest Level Detected	Use or Environmental Source
1,4-Dioxane	ppb	NA	0.12 to 0.21	0.21	Used as a solvent in manufacturing and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.

Source Water Monitoring

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

Unregulated Contaminant Monitoring Rule 2018-2020					
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 Coastal North System, the following substances were found. ¹					
Contaminant	Unit	MRL	Highest Level Detected	Range Detected	Use or Environmental Source
Metals - List 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	
Brominated Haloacetic Acid (HAA) Group – List AM 2					
HAA6Br Group					By-product of drinking water disinfection
Bromochloroacetic Acid	ppb	N/A	2.6	0.68 to 2.6	
Bromodichloroacetic Acid	ppb	N/A	1.7	ND to 1.7	
Dibromoacetic Acid	ppb	N/A	0.85	ND to 0.85	
Monobromoacetic Acid	ppb	N/A	0.52	ND to 0.52	
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	2.6	0.68 to 2.6	
Bromodichloroacetic Acid	ppb	N/A	1.7	ND to 1.7	
Dibromoacetic Acid	ppb	N/A	0.85	ND to 0.85	
Monobromoacetic Acid	ppb	N/A	0.52	ND to 0.52	
Tribromoacetic Acid	ppb	N/A	ND	ND	
Chlorodibromoacetic Acid	ppb	N/A	2.5	ND to 2.5	
Dichloroacetic Acid	ppb	N/A	8.8	2.9 to 8.8	
Monochloroacetic Acid	ppb	N/A	ND	ND	
Trichloroacetic Acid	ppb	N/A	8.8	1.6 to 8.8	

Per- and Polyfluoroalkyl Substances

Per- or polyfluoroalkyl substances (PFAS) are man-made substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. The New Jersey Department of Environmental Protection (NJDEP) has begun regulating some of these compounds, establishing a Maximum Contaminant Level for perfluorononanoic acid (PFNA) in 2019. While all other PFAS are not regulated, New Jersey American Water recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources.

Perfluorinated Compounds 2020

Parameter	Unit	Highest Level Detected	Range Detected	Use or Typical Source
Perfluorooctanoic acid (PFOA)	ppt	6.0	3.3 to 6.0	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon) fire- fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluoropentanoic Acid (PFOS)	ppt	4.4	ND to 4.4	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorononanoic Acid (PFNA)	ppt	2.0	ND to 2.0	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorohexanoic Acid (PFHxA)	ppt	3.6	2.3 to 3.6	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluoroundecanoic Acid (PFUnA)	ppt	2.6	ND to 2.6	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorohexanesulfonic Acid (PFHxS)	ppt	2.5	ND to 2.5	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluoroheptanoic Acid (PFHpA)	ppt	2.0	ND to 2.0	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorobutanesulfonic Acid (PFBS)	ppt	3.0	ND to 3.0	Manmade chemical; used in products for stain, grease, heat and water resistance
hexafluoropropylene oxide dimer acid (HFPO-DA)	ppt	2.2	ND to 2.2	Manmade chemical; used in products for stain, grease, heat and water resistance

Foot Note:

1. 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.
2. Fluoride is added to the water (Shrewsbury and Ocean County areas of Coastal North System).
3. Compliance is based on the Locational Running Annual Average (LRAA). Results in the table show the average of the 4 quarters of 2020.
4. This level represents the highest annual quarterly Average calculated from the data collected.
5. 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
6. 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.
7. 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.
8. 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.
9. Our water system violated a drinking water monitoring requirement during the past year. Even though this was not an emergency or danger to public health, as our customer, you have the right to know what happened and what we did to correct the situation. There is nothing you need to do at this time. New Jersey American Water routinely monitors your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. Our water system violated the turbidity monitoring requirement, specifically, failed to collect a grab sample at least once every four hours during a turbidimeter failure at the Swimming River TP CFE. No grab sample was collected between 3:43 AM and 09:05 AM on 05/03/2020.
10. Maximum percentage of positive samples collected in any one month.
11. Annual average of ratio removal for Swimming River and Jumping Brook treatment Plant. Compliance based on annual present of ratio removal.

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 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.