

Annual Drinking Water Quality Report

Borough of National Park Water Department

For the Year 2021, Results from the Year 2020

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

Our drinking water source is two wells. Our wells draw groundwater from the Lower Potomac-Raritan-Magothy Aquifer System. At this time, we are only using one well. We also purchase water from the New Jersey American Water. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued Source Water Assessment Reports and Summaries for this public water system and the New Jersey American Water Company which are available at WWW.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is included.

The Borough of National Park Water Department and New Jersey American Water routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of that monitoring for the period of January 1st to December 31st 2020. 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. 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. We received monitoring waivers for synthetic organic contaminants and asbestos.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Borough of National Park Water Department Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
Radioactive Contaminants:						
Combined Radium 228 & 226 Test results Yr. 2018	N	1.5	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants:						
Barium Test results Yr. 2018	N	0.06	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test results Yr. 2020 Result at the 90 th Percentile	N	0.14 No samples exceeded the action level	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Chromium Test results Yr. 2018	N	1.5	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride Test results Yr. 2018	N	0.4	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2020 Result at the 90 th Percentile	N	ND No samples exceeded the action level	Ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel Test results Yr. 2018	N	3.5	ppb	N/A	N/A	Erosion of natural deposits
Synthetic Organic Contaminants:						
PFNA Perfluorononanoic Acid Test results Yr. 2020	Y	Range = 16.3 – 21.4 Highest detect = 29.2	ppt	N/A	13	Discharge from industrial chemical factories
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2020	N	Range = 19 - 30 Highest LRAA = 30	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2020	N	Range = 6 - 9 Highest LRAA = 11	ppb	N/A	60	By-product of drinking water disinfection

For Total Haloacetic Acids (HAA5s) and Total Trihalomethanes (TTHMs), which are disinfection byproducts, compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

We have exceeded the MCL for (PFNA) Perfluorononanoic Acid at our drinking water treatment plant, of which you have been notified quarterly. We are working with the New Jersey Department of Environmental Protection to resolve this issue. The length of the Violation was 1/1/2020 – 12/31/20. Some people who drink water containing PFNA in excess of the MCL over many years could experience problems with their liver; kidney; immune system; or, in males, reproductive system. For females, drinking water containing PFNA in excess of the MCL over many years may cause developmental delays in a fetus and/or an infant."

Regulated Disinfectants	Level Detected	MRDL	MRDLG	Likely Source
Chlorine Test results Yr. 2020	Range = 0.4 – 0.9 Average = 0.7 ppm	4.0 ppm	4.0 ppm	Water additive used to control microbes

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. The Borough of National Park Water Department and New Jersey American Water are 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 and 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>.

DEFINITIONS:

In the “Test Results” table you may find some terms and abbreviations you might not be familiar with. To help you better understand these terms we’ve provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) -one part per million corresponds to one minute in two years or a penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or nanogram per liter - one part per trillion corresponds to one minute in 20,000 years, or a single penny in \$100,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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

Maximum Contaminant Level - The “Maximum Allowed” (MCL) 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.

Maximum Contaminant Level Goal -The “Goal” (MCLG) 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.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Secondary Contaminant- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Recommended Upper Limit (RUL) – Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RUL’s are recommendations, not mandates.

Total Organic Carbon (TOC): We are required to remove a certain percentage of (TOC) from our drinking water on a monthly basis. Total Organic Carbon has no adverse health effects. However, TOC provides a medium for the formation of disinfection byproducts.

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

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a 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

Drinking Water Sources:

The sources of drinking water (both tap water 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 in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally occurring or 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 septic systems, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791.

Unregulated Contaminant Monitoring: The Borough of National Park Water Department monitored for the following unregulated contaminants in 2019 & 2020. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Per – and polyfluoroalkyl substances (PFAS) are widely found in the environment. EPA has identified a health advisory level for two PFAS analytes, PFOA and PFOS 0.070 ppb either singly or combined, and NJDEP has adopted new drinking water standards (Maximum Contaminant Levels (MCLs)) for PFOA and PFOS of 14 ng/L (ppt) and 13 ng/L (ppt), respectively, as of January 2021. The detected levels of PFOA and PFOS found are below DEP’s adopted MCLs.

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = 3.6 – 4.9	ppt	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = 4.1 – 5.2	ppt	Used in the manufacture of fluoropolymers.

What are PFOA and PFOS?

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses based on its resistance to harsh chemicals and high temperatures. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water. More information can be found at: [https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-\(003\).pdf](https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-(003).pdf)

Cryptosporidium:

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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, immuno-compromised people, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Waivers: 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. New Jersey American Water received a monitoring waiver for synthetic organic contaminants.

New Jersey American Water - Western / Delaware System PWS ID # NJ0327001						
Year 2020 Test Results						
Contaminant	Viola-tion Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source
Microbiologicals:						
Turbidity	N	Highest single result – 0.1 100% of samples < 0.3	NTU	N/A	TT % of samples < 0.3	Soil runoff, Naturally present in the environment
Total Organic Carbon	N	Range = 1.29 – 1.89 % Average removal = > 1.0%		N/A	TT >35- 45% removal	Soil runoff, Naturally present in the environment
Inorganics:						
Copper Result at 90 th Percentile	N	0.29 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Barium	N	Range = ND – 0.1 Highest detect = 0.1	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Lead Result at 90 th Percentile	N	2 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	N	Range = ND – 0.4 Highest detect = 0.4	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	N	Range = ND – 0.99 Highest detect = 0.99	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radiologicals:						
Gross Alpha	N	Range = ND – 5.7 Highest detect = 5.7	pCi/l	0	15	Erosion of natural deposits
Combined Radium 226 & 228	N	Range = ND – 1.6 Highest detect = 1.6	ppb	0	5	Erosion of natural deposits

Disinfection Byproducts:						
TTHM [Total trihalomethanes]	N	Range = 7 - 38 Highest LRAA = 38	ppb	0	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = 3 - 16 Highest LRAA = 16	ppb	0	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Range = 0.5 – 1.0 ppm Average = 0.7 ppm		4.0 ppm		4.0 ppm

Chlorine: Water additive used to control microbes.

Total Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM) compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four yearly quarters of results.

Unregulated Contaminant Monitoring: New Jersey American Water monitored for the following unregulated contaminants in 2020. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Per- and polyfluoroalkyl substances (PFAS) are widely found in the environment. EPA has identified a health advisory level for two PFAS analytes, PFOA and PFOS 0.070 ppb either singly or combined, and NJDEP has adopted new drinking water standards (Maximum Contaminant Levels (MCLs)) for PFOA and PFOS of 14 ng/L (ppt) and 13 ng/L (ppt), respectively, as of January 2021. The detected levels of PFOA and PFOS found are below DEP's MCLs.

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = 1.8 – 4.8	ppt	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = 2.4 – 5.0	ppt	Used in the manufacture of fluoropolymers.

What are PFOA and PFOS?

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses based on its resistance to harsh chemicals and high temperatures. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water. More information can be found at: [https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-\(003\).pdf](https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-(003).pdf)

National Park Water Department-PWSID #NJ0812001

The National Park Water Department is a public community water system consisting of 2 wells and 1 purchased ground water and surface water source.

This system's source water comes from the following aquifer: Lower Potomac-Raritan-Magothy Aquifer

This system purchases water from the following water system: New Jersey American Water – Western System

Susceptibility Ratings for the National Park Water Department Sources

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.

The seven contaminant categories are defined at the bottom of this page. 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.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct 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 - 2			2		2				2	2			1	1		2				2				2	

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 Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

If you have questions about this report or concerning your water utility, please contact Steve Clark at 856-845-3891. We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled Council Meetings. Council Meetings are the first and third Wednesday of each month at 7:00 pm at 7 South Grove Road.

We at National Park Water Department works around the clock to provide you with top quality drinking water. We ask that our customers and residents help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

Western System - PWSID NJ 0327001

2019 Data Table of Detected Contaminants

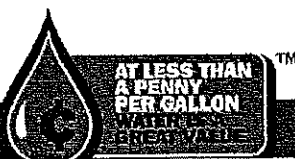
Towns Served by this System: Audubon, Audubon Park, Barrington, Bellmawr In part, Beverly, Burlington Twp In part, Camden (11th & 12th wards, Cramer Hill), Cherry Hill in part, Cinnaminson, Clementon, Delanco, Delran, Edgewater Park, Elk Twp in part, Gibbsboro, Gloucester Twp in part, Haddonfield, Haddon Heights, Haddon Twp In part, Hi-Nella, Laurel Springs, Lawnside, Lindenwold, Magnolia, Maple Shade in part, Mt Ephraim, Mt Laurel In part, Oaklyn, Palmyra, Pennsauken In part, Riverside, Riverton, Runnemede, Somerdale, Stratford, Voorhees

Regulated contaminants not listed in this table were not found in the treated water supply.

In addition to local ground water, the Western System receives treated surface water from the Delaware River Regional Water Treatment Plant. 2019 data is presented below.

Regulated Substances

Parameter	Units	Compliance Achieved	MCLG	MCL	Highs (ppm/L)	Range Detected	Typical Source
Inorganics							
Barium (2017) ⁵	ppm	Yes	2	2	0.1	ND to 0.1	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nickel (2017) ^{4,5}	ppb	Yes	NA ¹	NA ¹	64	ND to 64	Erosion of natural deposits
Nitrate	ppm	Yes	10	10	1.62	ND to 1.62	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Turbidity							
Turbidity	NTU	Yes	NA	TT = 1 NTU	0.08	0.05 to 0.08	Soil runoff
	%	Yes	NA	TT = % of samples < 0.3 NTU	100%	NA	Soil runoff
Treatment Byproducts Precursor Removal							
Total Organic Carbon (TOC)	%	Yes	NA	TT > 95% Removal	49% ³	49% to 71%	Naturally present in the environment.
Ratio of Actual / Required TOC Removal	Ratio	Yes	NA	TT: Running Annual Average ≥ 1.0	1.40 ³	1.40 to 2.02	Naturally present in the environment.
Disinfectants							
Chlorine (Surface Water)	ppm	Yes	NA	TT = ≥ 0.20	0.60 ¹	0.60 to 1.22	Water additive used to control microbes
		Yes	MRDLG = 4	MRDL = 4	1.22 ²		
Chlorine (Distribution System)	ppm	Yes	MRDLG = 4	MRDL = 4	0.65 ⁶	0.05 to 1.23	Water additive used to control microbes
Disinfection By-Products							
Total Trihalomethanes (TTHMs)	ppb	Yes	NA	80	32.3 ⁷	1.4 to 45.8	By-product of drinking water disinfection
Five Haloacetic Acids (HAA ₅)	ppb	Yes	NA	60	11.9 ⁷	ND to 22.8	By-product of drinking water disinfection
Lead and Copper Monitoring Program - At least 50 tap water samples were collected at customers' taps in 2019.							
Contaminant	Units	Compliance Achieved	MCLG	MCL	Highs (ppm/L)	Homes Above Action Level	Typical Source
Lead	ppb	Yes	0	15	1	0	Corrosion of household plumbing systems
Copper	ppm	Yes	1.3	1.3	0.313	0	Corrosion of household plumbing systems
Footnotes							
¹ Nickel monitoring is required. Currently there is no established MCL or MCLG							
² 100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water and a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.							
³ Data represents the lowest removal of Total Organic Carbon (TOC)							
⁴ Data represents the lowest residual entering the distribution system from our surface water treatment plant							
⁵ The State of New Jersey allows us to monitor for certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative, are more than one year old.							
⁶ Data represents the highest monthly average of chlorine residuals measured throughout our distribution system.							
⁷ Data represents the highest locational running annual average calculated quarterly.							



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Unregulated Contaminants Monitoring Rule (UCMR4)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health.

For general information on UCMR4, visit <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule> or contact EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Unregulated Contaminants Monitoring (UCMR4)				
Parameter	Units	Average Result	Range Detected	Typical Source
Bromochloroacetic Acid	ppb	1.32	ND to 2.8	By-product of drinking water disinfection
Bromodichloroacetic acid	ppb	0.97	ND to 2.5	By-product of drinking water disinfection
Chlorodibromoacetic acid	ppb	0.33	ND to 0.95	By-product of drinking water disinfection
Dibromoacetic Acid	ppb	0.42	ND to 1.5	By-product of drinking water disinfection
Dichloroacetic Acid	ppb	3.86	ND to 12	By-product of drinking water disinfection
Monobromoacetic Acid	ppb	0.01	ND to 0.34	By-product of drinking water disinfection
Total Haloacetic Acids	ppb	7.50	0.55 to 28	By-product of drinking water disinfection
Total Haloacetic Acids - Br	ppb	3.05	ND to 6.9	By-product of drinking water disinfection
Total Haloacetic Acids-UCMR4	ppb	10.15	0.96 to 28	By-product of drinking water disinfection
Trichloroacetic Acid	ppb	3.22	ND to 11	By-product of drinking water disinfection
2-Methoxyethanol	ppb	0.02	ND to 0.47	Used as a solvent in varnishes, dyes, resins, airplane deicing solutions. It is also used in organometallic chemistry synthesis.
Manganese*	ppb	3.70	ND to 12	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.

* Manganese is regulated as a secondary contaminant with a secondary maximum contaminant level of 50 ppb

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.

Unregulated Perfluorinated Compounds				
Parameter	Units	Average Result	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)*	ppt	0.23	ND to 5.5	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
* PFOA has a proposed MCL of 14 ppt				
Perfluoropentanoic Acid (PFOS)**	ppt	0.19	ND to 5.3	Manmade chemical; used in products for stain, grease, heat and water resistance
** PFOS has a proposed MCL of 13 ppt.				



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Solutions to Stormwater Pollution

Easy Things You Can Do Every Day To Protect Our Water

A Guide to Healthy Habits for Cleaner Water

Pollution on streets, parking lots and lawns is washed by rain into storm drains, then directly to our drinking water supplies and the ocean and lakes our children play in. Fertilizer, oil, pesticides, detergents, pet waste, grass clippings. You name it and it ends up in our water.

Stormwater pollution is one of New Jersey's greatest threats to clean and plentiful water, and that's why we're all doing something about it.

By sharing the responsibility and making small, easy changes in our daily lives, we can keep common pollutants out of stormwater. It all adds up to cleaner water, and it saves the highest cost of cleaning up once it's dirty.

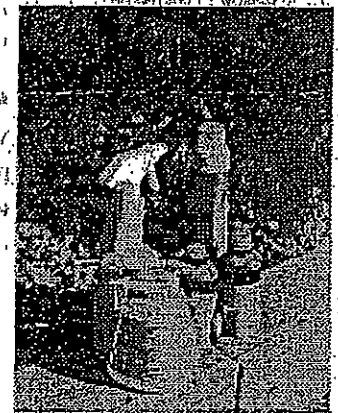
As part of New Jersey's initiative to keep our water clean and plentiful and to meet federal requirements, many municipalities and other public agencies including colleges and military bases must adopt ordinances or other rules prohibiting various activities that contribute to stormwater pollution. Breaking these rules can result in fines or other penalties.



As a resident, business, or other member of the New Jersey community, it is important to know these easy things you can do every day to protect our water.

Limit your use of fertilizers and pesticides

- Do a soil test to see if you need a fertilizer.
- Do not apply fertilizers if heavy rain is predicted.
- Look into alternatives for pesticides.
- Maintain a small lawn and keep the rest of your property or yard in a natural state with trees and other native vegetation that requires little or no fertilizer.
- If you use fertilizers and pesticides, follow the instructions on the label on how to correctly apply it.



Make sure you properly store or discard any unused portions.

Properly use and dispose of hazardous products

- Hazardous products include some household or commercial cleaning products, lawn and garden care products, motor oil, antifreeze, and paints.
- Do not pour any hazardous products down a storm drain because storm drains are usually connected to local waterbodies and the water is not treated.

- If you have hazardous products in your home or workplace, make sure you store or dispose of them properly. Read the label for guidance.

- Use natural or less toxic alternatives when possible.

- Recycle used motor oil.

- Contact your municipality, county or facility management office for the locations of hazardous-waste disposal facilities.



Clean up after your pet

- Many municipalities and public agencies must enact and enforce local pet-waste rules.

- An example is requiring pet owners or their keepers to pick up and properly dispose of pet waste dropped on public or other people's property.

- Make sure you know your town's or agency's requirements and comply with them. It's the law. And remember to:

- Use newspaper bags or pooper scoopers to pick up wastes.

- Dispose of the wrapped pet waste in the trash or unwrapped in a toilet.

- Never discard pet waste in a storm drain.



Dispose of yard waste properly

- Keep leaves and grass out of storm drains.

- If your municipality or agency has yard waste collection rules, follow them.

- Use leaves and grass clippings as a resource for compost.

- Use a mulching mower that recycles grass clippings into the lawn.



Don't litter

- Place litter in trash receptacles.

- Recycle. Recycle. Recycle.

- Participate in community cleanups.

Keep pollution out of storm drains

- Municipalities and many other public agencies are required to mark certain storm drain inlets with messages reminding people that storm drains are connected to local waterbodies.

- Do not let sewage or other wastes flow into a stormwater system.

Don't feed wildlife

- Do not feed wildlife, such as ducks and geese, in public areas.

- Many municipalities and other public agencies must enact and enforce a rule that prohibits wildlife feeding in these areas.

Contact information

For more information on stormwater-related topics, visit www.njstormwater.org or www.nonpointsource.org.

Additional information is also available at U.S. Environmental Protection Agency Web sites: www.epa.gov/npsds/stormwater or www.epa.gov/nps.

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control
Municipal Stormwater Regulation Program
(609) 633-7621



www.cleanwaternj.org

