

We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2020. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Where Does My Water Come From?

Our drinking water comes from a blend of sources that may include ground water from the Potomac-Raritan-Magothy Aquifer and surface water from the Delaware River. Moorestown Township purchases surface water from New Jersey American Water.

Community Participation

You are invited to participate in our public forum and voice your questions about your drinking water at regularly scheduled Moorestown TWP Council meetings which are open to the public held at the Town Hall located at 111 W 2nd Street. Meeting date and time available on the Moorestown TWP website www.moorestown.nj.us/ or Phone: 856-235-0912



Questions?

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 call Martin Pratt at the Moorestown Township Department of Public Works at (856) 235-3520 Option #2.

Township of Moorestown

PWS ID#: NJ0322001
601 East Third Street
Moorestown, NJ 08057

Township of Moorestown

PWS ID#: NJ0322001



2020 Annual Drinking Water Quality Report

Source Water Assessment

SWAP (Source Water Assessment Program) is a program of the New Jersey Department of Environmental Protection (NJDEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

DEP considered all surface water highly susceptible to pathogens; therefore, all intakes received a high rating for the pathogen category. For the purpose of the Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and a low rating was assigned.

Susceptibility Ratings for the Township of Moorestown 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 intake that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer

Source	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 - 7			7			7			7			7			7			7			7			7

For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for Moorestown's public water system, which is available at <http://www.nj.gov/dep/watersupply/swap/index.html>, or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550 or watersupply@dep.nj.gov.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

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.

Lead in Home Plumbing

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. We 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 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>.

Substances that Could be in Water

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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity.

Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

System Update

Upgrades to the N Church Street and Hartford Road Water Treatment Plants completed and both Plants placed online in 2020.

The upgraded Kings HWY Water Treatment Plant was completed and placed on line in April, 2018.

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES				Moorestown Township		Delaware River Regional WTP		Violation	Typical Source
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High		
Alpha Emitters (pCi/L)	2020	15	0	7.42	ND - 7.42	NA	NA	No	Erosion of natural deposits
Barium (ppm)	2020	2	2	0.057	ND - 0.057	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2020	[4]	[4]	0.34 ³	0.26 - 0.55	1.46 ⁵	0.56-1.46	No	Water additive used to control microbes
Combined Radium (pCi/L)	2020	5	0	2.95	ND - 2.95	NA	NA	No	Erosion of natural deposits
Cyanide (ppm)	2020	0.2	0.2	0.0011	ND - 0.0011	NA	NA	No	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Ethylbenzene (ppb)	2020	700	700	0.42	ND - 0.42	NA	NA	No	Discharge from petroleum refineries
Fluoride (ppm)	2020	4	4	0.18	0.1 - 0.18	NA	NA	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2020	60	NA	8.15 ⁴	ND - 16.1 ⁴	NA	NA	No	By-product of drinking water disinfection
Nickel (ppb)	2020	NA	NA	0.0052	ND - 0.0052	NA	NA	No	Pollution from mining and refining operations; Natural occurrence in soil
Nitrate (ppm)	2020	10	10	NA	NA	0.99	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	32.975 ⁴	ND - 28.9 ⁴	NA	NA	No	By-product of drinking water disinfection
Total Organic Carbon (% removal)	2020	TT>or equal 35% removal	NA	NA	NA	45% ²	45%–66%	No	Naturally present in the environment
Ratio of Actual / Required TOC Removal	2020	TT: Running Annual Average ≥ 1.0	NA	NA	NA	1.29 ²	1.29-1.89	No	Naturally present in the environment
Turbidity ¹ (NTU)	2020	TT=1 NTU	0	NA	NA	0.1	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2020	TT=% of samples <0.3 NTU	NA	NA	NA	100%	NA	No	Soil runoff
Xylenes (Total) (ppb)	2020	1000	1000	3.1	ND - 3.1	NA	NA	No	Discharge from petroleum factories; discharge from chemical factories

The level represents the highest value of Locational Running Annual Average calculated from the data collected.

⁴ The range represents the minimum and the maximum values out of all TTHMs and HAAs data collected throughout the year.

COPPER and LEAD							
Substance (Unit)	AL	MCLG	Year Sampled	Amount Detected (90TH%TILE)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	1.3	1.3	Jan-June 2020	0.18	0/62	No	Corrosion of household plumbing systems; Erosion of natural deposits
			July-Dec 2020	0.2	0/68	No	
Lead (ppb)	15	0	Jan-Jun 2020	2.3	1/62	No	Corrosion of household plumbing systems; Erosion of natural deposits
			July-Dec 2020	4.3	1/68	No	

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4)		Moorestown Township		Delaware River Regional WTP	
Substance (Unit)	Year Sampled	Average Detected	Range Low-High	Average Detected	Range Low-High
Bromochloroacetic Acid (ppb)	2020	0.76	ND - 2.4	NA	NA
Bromodichloroacetic Acid (ppb)	2020	0.29	ND - 1.1	NA	NA
Chlorodibromoacetic Acid (ppb)	2020	0.15	ND - 0.67	NA	NA
Dibromoacetic Acid (ppb)	2020	0.38	ND - 1.3	NA	NA
Dichloroacetic Acid (ppb)	2020	1.83	ND - 2.4	NA	NA
Trichloroacetic Acid (ppb)	2020	1.16	ND - 3.2	NA	NA
Manganese (ppb) ⁶	2020	5.65	ND - 47	1.02*	ND - 1.8*

* Measured in 2019

¹ 100% 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 turbidity because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

² Data represents the lowest removal of Total Organic Carbon (TOC)

³ Amount Detected value represents the highest running annual average.

⁴ Amount Detected value represents the highest locational running annual average (LRAA). Total Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHMs) compliance is based on a LRAA, calculated at each location. LRAA calculations are based on four quarters of results.

⁵ Data represents the lowest chlorine residuals entering the distribution system from our surface water treatment plant.

⁶ Manganese is regulated as a secondary contaminant with a secondary contaminant level of 50 ppb.

We participated in the 4th stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. 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 future regulation is warranted. Any unregulated contaminants detected are reported in this table. For additional information and data, visit <https://www.epa.gov/dwucmr/fourth-unregulatedcontaminant-monitoring-rule> or call the Safe Drinking Water Hotline at (800) 426-4791.

UNREGULATED CONTAMINANT MONITORING		Moorestown Township		Delaware River Regional WTP	
Substance (Unit)	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High
1,4 -Dioxane (ppb)	2020	0.8	ND-0.8	ND	NA

Asbestos monitoring waiver granted by NJDEP for compliance period 1/1/2020 through 12/31/2028

NJDEP SOC (Synthetic Organic Compounds) waiver has not yet been issued for the 2020-2022 compliance period, however, we expect to receive one pending NJDEP review.

UNREGULATED PERFLUORINATED COMPOUNDS		Moorestown Township		Delaware River Regional WTP		Typical Source
Substance (Unit)	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High	
Perfluorooctanoic Acid (PFOA) (ppt)	2020	ND	ND	3.46	2.4 - 5.0	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.
Perfluorooctanesulfonic Acid (PFOS) (ppt)	2020	ND	ND	3.13	1.8 - 4.8	Manmade chemical; used in products for stain, grease, heat and water resistance

In 2020 Moorestown Water Dept. received a violation for the late reporting of testing results:

Moorestown received a reporting violation in 2020 for the late submittal of a system entry point PH for the monitoring period 7/14/19 to 7/27/19. The PH of water entering the water system is tested and the results reported as part of Water Quality Parameter monitoring requirements. PH measures the acidity of water with the acceptable range from 6.5 to 8.5. All the required testing was completed and all results reported, however, due to a typographical error a testing date was incorrectly entered. The testing report was resubmitted with the corrected test date and State compliance achieved. The reported PH of 7.2 for the monitoring period 7/14/19 to 7/27/19 was within the acceptable range.

On a regular bases Moorestown Water Department reviews all the required laboratory testing and coordinates with a certified laboratory to insure that all testing is completed and results are correctly reported. We are now conducting additional reviews of testing result reporting to ensure this violation does not occur again.

Definitions: In the table above, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

AL (Action Level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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 contaminants.

NA: not applicable

ND (Not Detected): indicates that the substance was not found by laboratory analysis.

Nephelometric Turbidity Unit (NTU): measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): measure of the radioactivity in water.

ppb (parts per billion) or µg/l (micrograms per liter): one part by weight of analyte to 1 billion parts by weight of the water sample.

ppm (parts per million) or mg/l (milligrams per liter): one part by weight of analyte to 1 million parts by weight of the water sample.

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.

TT (Treatment Technique): a required process intended to reduce the level of a contaminant in drinking water.

