

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, 2019. 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.

Township of Moorestown

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

Township of Moorestown

PWS ID#: NJ0322001



2019 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

| 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 - 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 are scheduled to be completed 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 | | |
| Barium (ppm) | 2017 | 2 | 2 | 0.0377 | 0.0043 - 0.0377 | NA | NA | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Beryllium (ppb) | 2017 | 4 | 4 | 0.73 | ND - 0.73 | NA | NA | No | Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries |
| Chlorine (ppm) | 2019 | [4] | [4] | 0.34 ³ | 0.22-0.54 | 0.60 ⁵ | 0.60-1.22 | No | Water additive used to control microbes |
| Combined Radium (pCi/L) | 2019 | 5 | 0 | 1.11 | ND - 1.11 | NA | NA | No | Erosion of natural deposits |
| Haloacetic Acids [HAA] (ppb) | 2019 | 60 | NA | 7.0 ⁴ | 0-12 | NA | NA | No | By-product of drinking water disinfection |
| Nickel (ppb) | 2017 | NA | NA | 10.9 | ND - 10.9 | NA | NA | No | Pollution from mining and refining operations; Natural occurrence in soil |
| Nitrate (ppm) | 2019 | 10 | 10 | 4.3 | ND-4.3 | 1.17 | NA | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Selenium (ppb) | 2017 | 50 | 50 | 2.2 | 1 - 2.2 | NA | NA | No | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines |
| TTHMs [Total Trihalomethanes] (ppb) | 2019 | 80 | NA | 33 ⁴ | 2.3-42 | NA | NA | No | By-product of drinking water disinfection |
| Total Organic Carbon (% removal) | 2019 | TT>or equal 35% removal | NA | NA | NA | 49% ² | 49%–71% | No | Naturally present in the environment |
| Ratio of Actual / Required TOC Removal | 2019 | TT: Running Annual Average ≥ 1.0 | NA | NA | NA | 1.40 ² | 1.40-2.02 | No | Naturally present in the environment |
| Turbidity ¹ (NTU) | 2019 | TT=1 NTU | 0 | NA | NA | 0.08 | 0.06 - 0.08 | No | Soil runoff |
| Turbidity (Lowest monthly percent of samples meeting limit) | 2019 | TT=% of samples <0.3 NTU | NA | NA | NA | 100% | NA | No | Soil runoff |

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 2019 | 0.179 | 0/63 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| | | | July-Dec 2019 | 0.28 | 0/63 | No | |
| Lead (ppb)* | 15 | 0 | Jan-Jun 2019 | 3.6 | 3/63 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| | | | July-Dec 2019 | 2.6 | 0/63 | No | |

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

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)

| Substance (Unit) | Year Sampled | Moorestown Township | | Delaware River Regional WTP | | Typical Source |
|--------------------|--------------|---------------------|----------------|-----------------------------|----------------|----------------|
| | | Amount Detected | Range Low-High | Amount Detected | Range Low-High | |
| 1,4 -Dioxane (ppb) | 2019 | 0.94 | ND-0.94 | ND | NA | NA |

| UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4) | | Moorestown Township | | Delaware River Regional WTP | | Typical Source |
|--|--------------|---------------------|----------------|-----------------------------|----------------|--|
| Substance (Unit) | Year Sampled | Amount Detected | Range Low-High | Amount Detected | Range Low-High | |
| Manganese (ppb) | 2019 | ND | NA | 1.02 | ND - 1.8 | Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element. |

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 SECONDARY CONTAMINANTS | | | Moorestown Township | | Delaware River Regional WTP | | Typical Source |
|------------------------------------|--------------|-------------------------------|---------------------|----------------|-----------------------------|----------------|--------------------------------|
| Substance (Unit) | Year Sampled | Recommended Upper Limit (RUL) | Amount Detected | Range Low-High | Amount Detected | Range Low-High | |
| pH | 2019 | 6.5 - 8.5 | 7.47 | 6.71 - 8.07 | NA | NA | Acidity of water |
| Sodium (ppm) | 2017 | 50 | 4.6 | 2.27 - 6.88 | NA | NA | Leaching from natural deposits |
| Sulfate (ppm) | 2017 | 250 | 12.25 | 11.3 - 12.6 | NA | NA | Leaching from natural deposits |

- 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. Monitoring waiver granted by NJDEP for Asbestos from 2011 – 2019 based on their determination of the unlikely vulnerability of Moorestown's water system to Asbestos contamination.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER – Moorestown Water Department Failed to Comply With a Testing Procedure

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. In February 2019 we "did not monitor or test" or "did not complete all monitoring or testing" for Total Haloacetic Acids (HAA5), and therefore cannot be sure of the quality of your drinking water during that time.* Any sample we collect must be sent to, analyzed, and reported by a certified laboratory within a specific amount of time. Moorestown is required to test for Haloacetic Acids (HAA5), a by-product of drinking water disinfection, in February, May, August, & November of each year. As part of the required testing, on February 27, 2019 four

(HAA5) samples were collected and sent to a certified laboratory for analysis and reporting. On 3/14/2019 we received notification of Laboratory Quality Control (QC) failures for two of the samples. The QC failures required re-collection and analyses of the two failed samples which we completed on 3/20/2019. Laboratory notification of Quality Control (QC) failures and the subsequent resampling occurred in March resulting in a violation.

What should I do?
There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done?
In March 2019 we sampled for Total Haloacetic Acids. The samples were successfully analyzed and their results reported. The sample results were included in the running average for the appropriate sample sites. Sample results were below the Maximum Contaminate Level (MCL) for Total Haloacetic Acids. NJDEP Compliance achieved 3/20/2019. For more information, contact Moorestown's Water Department, Martin Pratt at 856-235-3520

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Moorestown Water Department.
State Water System ID#: NJ0322001.
Date distributed: June, 2020.

In 2019 Moorestown Water Dept. received three violations for the late reporting of testing results:

Moorestown received two reporting violations in 2019 for the late submittal of 2nd quarter April - June testing results for Gross Alpha and for Combined Uranium both part of Radiological testing required at our N Church St Water Treatment Plant which includes a radium removal treatment system. Their typical source is from the erosion of natural deposits in the ground. All required Radiological testing was completed in May and June of 2019, however, the testing results for Gross Alpha and for Combined Uranium were not reported by the certified laboratory completing the testing until July, resulting in the violations. The testing results for Gross Alpha and Combined

Uranium were both non-detect. State compliance achieved in July when the sample results were reported. Moorestown also, received a 2019 reporting violation for the late submittal of May testing results for Total Haloacetic Acids (HAA5). HAA5 is a by-product of drinking water disinfection. All required sampling and testing for HAA5 was completed during the May monitoring period, however, due to computer issues at the certified laboratory completing the testing, the results were reported late. The sample results were included in the running average for the appropriate sample sites.

Sample results were below the Maximum Contaminate Level (MCL) for Total Haloacetic Acids. State compliance achieved in July when the testing laboratory was able to report the results. 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 the results are correctly reported. In the event of an error, necessary corrections are coordinated with the testing laboratory to maintain compliance.

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.

