

ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By
Township of Moorestown



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

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 we 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 two minutes before using water for drinking or cooking. However, for those served by a lead service line, flushing times may vary based on the length of the service line and plumbing configuration in your home. If your home is set back further from the street, a longer flushing time may be needed. To conserve water, other household water usage activities such as showering, washing clothes, and running the dishwasher are effective methods of flushing out water from a service line. To determine if you have a lead service line, contact us at (856) 235-3520, option 2.

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 at (800) 426-4791 or www.epa.gov/safewater/lead.

Level 2 Assessment Update

Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify and correct any problems.

During the past year, our water system was required to complete one Level 2 assessment. One Level 2 assessment was completed. In addition, we were required to take one corrective action, and we completed that action.

Source Water Assessment

The Source Water Assessment Program (SWAP) is a program of the New Jersey Department of Environmental Protection (DEP) 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 considers 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 groundwater than surface water. As a result, the susceptibility of surface water intakes to radionuclides was not determined, and a low rating was assigned.

For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report. Source water assessment reports, definitions, and summaries are available for public water systems at www.state.nj.us/dep/watersupply/swap/assessments.htm or by contacting DEP's Bureau of Safe Drinking Water at (609) 292-5550.

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 install treatment if any contaminants are detected at frequencies or concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Where Does My Water Come From?

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

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 Wayne McEwen, Department of Public Works, at (856) 235-3520, option 2.

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.



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

RUL (Recommended Upper Limit): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

Community Participation

If you have questions or would like to become involved in discussions about your water quality, the Moorestown Township Council has regularly scheduled meetings at Town Hall, 111 West Second Street, which are open to the public. Meeting dates and times are available at www.moorestown.nj.us or by calling (856) 235-0912.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

Call us at (856) 235-3520, option 2, to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

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.

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.

REGULATED SUBSTANCES ¹									
				Moorestown Township		Delaware River Regional WTP			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,1-Dichloroethylene (ppb)	2022	2	2	0.22	NA	NA	NA	No	Discharge from industrial chemical factories
Alpha Emitters (pCi/L)	2020	15	0	7.42	ND-7.42	NA	NA	No	Erosion of natural deposits
Bromate (ppb)	2022	10	0	NA	NA	4.3	ND-7	No	By-product of drinking water disinfection
Chlorine (ppm)	2022	[4]	[4]	0.38 ²	0.36-0.41	1.15	0.50-1.15	No	Water additive used to control microbes
Chromium (ppb)	2020	100	100	0.66	ND-0.66	NA	NA	No	Discharge from steel and pulp mills; erosion of natural deposits
Combined Radium (pCi/L)	2022	5	0	0.71	NA	NA	NA	No	Erosion of natural deposits
Haloacetic Acids [HAAs]-Stage 2 (ppb)	2022	60	NA	9.5 ³	ND-9.5	NA	NA	No	By-product of drinking water disinfection
Nickel (ppb)	2020	100	NA	0.0052	ND-0.0052	NA	NA	No	Pollution from mining and refining operations; natural occurrence in soil
Nitrate (ppm)	2022	10	10	3.8	ND-3.8	1.03	NA	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Perfluorooctanesulfonic Acid [PFOS] (ppt)	2022	13	NA	ND	NA	3.0	ND-3.5	No	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films
Perfluorooctanoic Acid [PFOA] (ppt)	2022	14	NA	ND	NA	3.0	ND-4.0	No	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films
Tetrachloroethylene (ppb)	2016	1	0	0.23	NA	NA	NA	No	Discharge from factories and dry cleaners
Thallium (ppb)	2014	2	0.5	0.03	ND-0.03	NA	NA	No	Leaching from ore processing sites; discharge from electronics, glass, and drug factories
Total Organic Carbon (removal ratio)	2022	TT ⁴	NA	NA	NA	1.5	1.23-1.6	No	Naturally present in the environment
TTHMs [total trihalomethanes]-Stage 2 (ppb)	2022	80	NA	36.8 ⁵	ND-36.8	NA	NA	No	By-product of drinking water disinfection
Turbidity ⁶ (NTU)	2022	TT	NA	NA	NA	0.1	0.03-0.1	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2022	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	No	Soil runoff

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

				Moorestown Township		Delaware River Regional WTP			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2022	1.3	1.3	0.24	0/37	NA	NA	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2022	15	0	0.0014	0/37	NA	NA	No	Corrosion of household plumbing systems; erosion of natural deposits

SECONDARY SUBSTANCES

				Moorestown Township		Delaware River Regional WTP			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fluoride (ppm)	2020	2	NA	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
Manganese (ppb)	2022	50	NA	NA	NA	1.02	ND–1.8	No	Leaching from natural deposits

UNREGULATED SUBSTANCES

				Moorestown Township		Delaware River Regional WTP			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE			
1,4-Dioxane (ppb)	2022	0.57	0.089–0.57	NA	NA	NA			
2-Methoxyethanol (ppb)	2022	NA	NA	0.24	ND–0.47	Used as a solvent in varnishes, dyes, resins, airplane deicing solutions; also used in organometallic chemistry synthesis			
Bromochloroacetic Acid (ppb)	2020	0.76	ND–2.4	NA	NA	NA			
Bromodichloroacetic Acid (ppb)	2020	0.29	ND–1.1	NA	NA	NA			
Chlorodibromoacetic Acid (ppb)	2020	0.15	ND–0.67	NA	NA	NA			
Dibromoacetic Acid (ppb)	2020	0.38	ND–1.3	NA	NA	NA			
Dichloroacetic Acid (ppb)	2022	2.9	ND–2.9	NA	NA	NA			
Trichloroacetic Acid (ppb)	2020	1.16	ND–3.2	NA	NA	NA			

¹ Under a waiver granted on December 30, 1998, by DEP, our system does not have to monitor for synthetic organic chemicals or pesticides because several years of testing have indicated that these substances do not occur in our source water. 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. Our system received monitoring waivers for synthetic organic chemicals and asbestos.

² Highest running annual average.

³ HAA compliance is based on a locational running annual average, which was 4 ppb.

⁴ The value reported under Amount Detected for TOC is the lowest ratio of percentage of TOC actually removed to percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

⁵ TTHM compliance is based on a locational running annual average, which was 26 ppb.

⁶ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU (no sample may exceed 1 NTU).

Additional Information

In June 2022, Moorestown Township received a notice of error from our contracted lab that a repeat coliform sample had not been tested when the sample was taken. The township notified DEP, Bureau of Safe Drinking Water, for guidance. Under direction of the bureau, the samples were retaken and tested, along with samples from all wells in service. No results were positive, and the township completed a Level 2 Assessment. The contracted lab was identified as the cause of the testing error. It completed an internal protocol review to prevent any future errors. Moorestown Township consistently reviews all laboratory testing and coordinates with its certified laboratory that all testing has been completed and reported correctly.

