

Annual Drinking Water Quality Report

Town of Newton Water Utility

For the Year 2023, Results from the Year 2022

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 of water services we deliver to you every day. Our constant 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 to protect our water resources. We are committed to ensuring the quality of your water.

If you are a landlord, you must distribute this Drinking Water Quality Report to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be done by hand, mail, or email, and by posting the information in a prominent location at the entrance of each rental premises, pursuant to section #3 of NJ P.L. 2021, c.82 (C.58:12A-12.4 et seq.).

Water System Description:

Newton's water source is Morris Lake located in Sparta Township on top of Sparta Mountain. The NJ Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at <https://www.nj.gov/dep/watersupply/swap/index.html> or by contacting NJDEP's Bureau of Safe Drinking Water at 609-292-5550.

Need Additional Information?

This report shows our water quality and what it means. We want our valued customers to be informed about their water utility. If you have any questions concerning your water utility, please contact Thomas S. Russo, Jr., Town Manager at 973-383-3521 ext. 224. If you want to learn more, please attend any regularly scheduled Town Council meeting held at the Municipal Building, 39 Trinity Street, at 7:00pm on the second and fourth Monday of each month.

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).

Monitoring Program and Results:

The Newton Water Utility routinely monitors for constituents in your drinking water according to Federal and State laws. The enclosed table shows the results of the monitoring for the period of January 1 to December 31, 2022. All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. 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 or contact the web site at www.epa.gov/safewater. In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contamination in bottled water, which must provide the same protection for public health.

The Department of Environmental Protection has also implemented Water Quality Parameter testing for lead and copper. Alkalinity and Orthophosphate are two parameters measured to ensure Newton's corrosion inhibitors are effective in not allowing lead and copper to leach out of our pipes into your drinking water. These parameters are sampled every two weeks at our water treatment plant in Sparta Township and every quarter at 3 sites within the Town of Newton. The DEP sets limits on both parameters. The Town of Newton had no violations in 2022. The Town also has to sample quarterly for 504's and PFNA's. The 504's are mainly found in pesticides. The PFNA's are chemicals used in the production of non-stick, stain repellent, and chemically inert coatings. These chemicals are carcinogens and are persistent in the environment. Newton had no detections for 504's and PFNA's in 2022.

Drinking Water Sources and Contaminants

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 natural-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 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 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 number 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.

Definitions:

In the following table, you will find terms and abbreviations that might not be familiar. To help you better understand these terms, we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent 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 single 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.

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

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.

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

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

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.

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.

Turbidity – Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium microbial growth. Turbidity is measured as an indication of the effectiveness of the filtration process. The *Treatment Technique* for turbidity requires that no individual sample exceeds 1 NTU and 95% of the samples collected during the month must be less than 0.3 NTU.

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. 2022	N	0.005	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test results Yr. 2021 Result at 90 th Percentile	N	0.22 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
Fluoride Test results Yr. 2022	N	0.46	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2021 Result at 90 th Percentile	N	1.28 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2022	N	Range = 40 - 95 Highest LRAA = 76	ppb	0	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2022	N	Range = 29 - 60 Highest LRAA = 50	ppb	0	60	By-product of drinking water disinfection
Microbiological Contaminants:						
Turbidity	N	Highest single result – 0.09 100% of samples < 0.3	NTU	N/A	TT % of samples < 0.3	Soil runoff. Naturally present in the environment

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.

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine Test results Yr. 2022	Range = 0.8 – 1.3 ppm Average = 1.0 ppm	4.0 ppm	4.0 ppm

Chlorine: Water additive used to control microbes.

Turbidity

Turbidity is the measure of relative clarity of a liquid. Material that causes water to be turbid include clay, silt, very tiny inorganic and organic matter, algae, dissolved colored organic compounds and plankton, and other microscopic organisms. The Town of Newton operates a microfiltration system. The annual average of turbidity leaving the plant is 0.040 NTU (Nephelometric Turbidity Units). The NJDEP mandates the limit for turbidity leaving a treatment plant is 0.30 NTU. The reason for monitoring turbidity is because it can promote microorganism growth. In order to protect against contamination risks, turbidity is monitored continuously.

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 all these types of contaminants.

Special consideration regarding children, pregnant women, nursing mothers, and others:

Children may receive a slightly higher amount of a contaminant present in water than adults, based on body weight, because children may drink a greater amount of water per pound of body weight than adults. Therefore, reproductive or developmental effects are used to calculate drinking water standards if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent to account for additional uncertainties regarding such effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

The Newton Water Utility works hard to provide top quality water for every customer. In turn, we ask you, our customers, to protect our water resources. Please call our office at 973-383-2090 if you have questions regarding the water quality or this report.

Sources of Lead in Drinking Water

The Town of Newton Water Utility is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Although most lead exposure occurs from inhaling dust or from contaminated soil, or when children eat paint chips, the U.S. Environmental Protection Agency (USEPA) estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Lead is rarely found in the source of your drinking water but enters tap water through corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing materials. These materials include lead-based solder used to join copper pipes, brass, and chrome-brass faucets, and in some cases, service lines made of or lined with lead. New brass faucets, fittings, and valves, including those advertised as “lead-free”, may still contain a small percentage of lead, and contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 0.25 percent lead to be labeled as “lead free”. However, prior to January 4, 2014, “lead free” allowed up to 8 percent lead content of the wetted surfaces of plumbing products including those labeled National Sanitation Foundation (NSF) certified. Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures. Consumers should be aware of this when choosing fixtures and take appropriate precautions. When water stands in lead service lines, lead pipes, or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother’s bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure. You can find out more about how to get your child tested and how to pay for it at <https://www.state.nj.us/health/childhoodlead/testing.shtml>.

In July 2021, P.L.2021, Ch.183 (Law) was enacted, requiring all community water systems to replace lead service lines in their service area within 10 years. Under the law, The Town of Newton Water Department is required to notify customers, non-paying consumers, and any off-site owner of a property (e.g., landlord) when it is known they are served by a lead service line*. Our service line inventory is available on our website at www.newtownhall.com under Water & Sewer Utilities, or upon request.

All water systems are required to comply with the federal Total Coliform Rule. Beginning April 1, 2016, all water systems were also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. Coli bacteria). Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. In 2022 there were no positive samples for total coliform found in samples collected in the distribution system

IMPORTANT INFORMATION ABOUT OUR DRINKING WATER

On August 23, 2022, the Town of Newton Water Utility experienced a monitoring and reporting violation for water quality parameter testing, specifically: orthophosphate, alkalinity, and Ph samples were not collected within the prescribed sample collection schedule.

There is nothing you need to do at this time.

Optimal water quality parameter monitoring commenced on September 7, 2022. Going forward, Newton’s optimal parameter water quality sampling will follow the NJDEP’s bi-weekly monitoring period schedule to ensure samples are collected within the proper timeframe.

Newton Water & Sewer Utility- PWSID # NJ1915001

Newton Water & Sewer Utility is a public community water system consisting of one well under the influence of surface water and one surface water intake.

This system's source water comes from the following aquifer and surface water body: Jacksonburg Limestone, Kittatinny Supergroup Aquifer, and Morris Lake in Sparta Township.

This system can purchase water from Sparta Water Utility

Susceptibility Ratings for Newton Water & Sewer Utility 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			Radio-nuclides			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				
GUDI - 1	I			I							I			I				I						1		
Surface water intakes - 1	I					I			I				I							I				1		

- 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.ni.govidep/rppiradon/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.