

PWS NJ1915001
Annual Drinking Water Quality Report
Town of Newton Water Utility
For 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 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.

WATER SYSTEM DESCRIPTION - PWS 1915001

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 <http://www.state.nj.us/dep/swap> 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.

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, 2020. 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 2020. 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 violations for 504's and PFNA's in 2020.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer who are 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 reduce the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

DRINKING WATER SOURCES & 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.

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

Children may receive a slightly higher amount of a contaminant present in water than do adults, based on body weight, because children may drink a greater amount of water per pound of body weight than do 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.

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 two thousand years, or a single penny in \$10,000,000.

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 at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for 70 years to have a one-in-a million chance of having the described health effect. 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.

Secondary Maximum Contaminant Level – (SMCL) Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Picocuries per liter – picocuries per liter is a measure of the radioactivity in water.

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 Goal (MRDLG) – The level of 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.

Running Annual Average (RAA) – the average of the monitoring period results for a period of one year, usually calculated on a quarterly basis.

Locational Running Annual Average (LRAA) – the average of the monitoring period results at a specific location for a period of one year, usually calculated on a quarterly basis.

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.

****Haloacetic Acids: MCL=60 ppb as LRAA**

QUARTER	HIGHEST LRAA	RANGE
1	49.5 ppb	43.5 -66.1 ppb
2	50.3 ppb	33.8 – 38 ppb
3	49.3 ppb	24.0 – 50.2 ppb
4	44.2 ppb	36.9 – 49.3 ppb

****Total Trihalomethanes: MCL=80 ppb as LRAA**

QUARTER	HIGHEST LRAA	RANGE
1	74.5 ppb	59.1 – 76.1 ppb
2	71.1 ppb	61.1 – 87.5 ppb
3	77.4 ppb	63.0 – 75.0 ppb
4	74.8 ppb	47.5 – 60.5 ppb

***Both are a byproduct of drinking water disinfection. "Maximum Detected Level" indicated is the maximum locational running annual average (LRAA). "Range" indicates the range of individual samples results.*

Gross Alpha, Combined Radium & Uranium

Result above detection limit but below half the maximum contaminant level (MCL). Sampling for radionuclides is due next in 2024.

Sample	Sample	Gross Alpha	Radium-226/228	Uranium
<u>Location</u>	<u>Date</u>	<u>(pCi/L)</u>	<u>(PCi/L)</u>	<u>(mg/L)</u>
TP001002	11/14/2018	<3	1.5	0.002

Chlorine Disinfectant Residual⁽¹⁾ – MRDL and MRDLG = <4.0 ppm

Highest RAA: 1.46 ppm Range 0.11 ppm – 1.46 ppm

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 0.150 NTU.

Inorganic Contaminants:

<u>Contaminant</u>	<u>Violation Y/N</u>	<u>Level Detected</u>	<u>MC/LG</u>	<u>MCL</u>	<u>Likely Source</u>
Copper SAMPLED 2018 NEXT SAMPLE 2021	No	0.211 ppm	1.3	AL=1.3	Corrosion of Household Plumbing systems; erosion of natural deposits.
Fluoride	No	0.26 ppm	4.0	4.0	Fluoride is Added to the water to promote strong teeth. Other possible sources include erosion of natural deposits; discharged from fertilizer and aluminum factories.
Lead ⁽²⁾ SAMPLED 2018 NEXT SAMPLE 2021	No	2 ppb	0	AL= 15 ppb #samples > AL = 1	Corrosion of household plumbing systems, erosion of natural deposits.
Barium	No	<0.1 ppm	2.0	2.0	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.
Nitrate/Nitrite	No	<0.050 ppm	10.0	10.0	

(2) "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 Town of Newton Water Utility is 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/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.html>"

All water systems are required to comply with the federal Total Coliform Rule. Beginning April 1, 2016, all water systems are 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 2020, the Town of Newton Water Utility had no positive total coliform or E. Coli detections.