

2019 drinking water quality report

HICKSVILLE WATER DISTRICT
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902829

ANNUAL WATER SUPPLY REPORT

MAY 2020

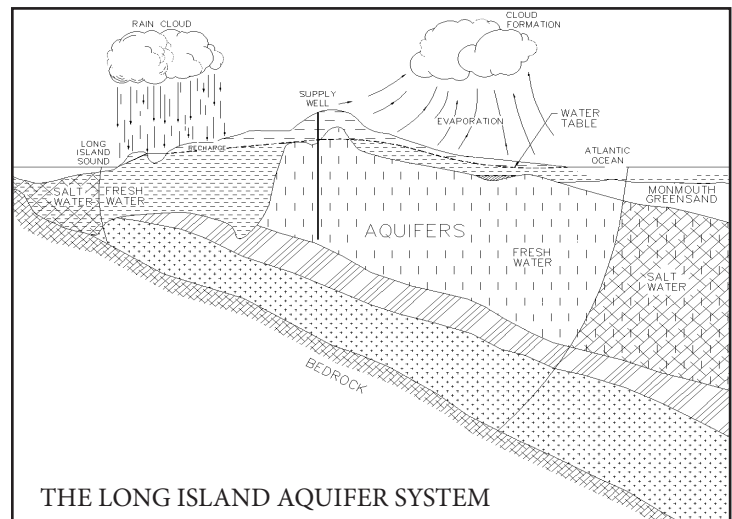
The Hicksville Water District is pleased to present this year's Water Quality Report. The report is required to be delivered to all residents of our District in compliance with Federal and State regulations. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We also want you to understand the efforts we make to continually improve the water treatment process and protect our water supply. The Board of Water Commissioners and the District employees are committed to ensuring that you and your family receive the highest quality water.

SOURCE OF OUR WATER

The source of water for the District is groundwater pumped from 14 wells located throughout the community that are drilled into the Magothy aquifer beneath Long Island, as shown on the adjacent figure. Generally, the water quality of the aquifer is good-to-excellent, although there are localized areas of contamination.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

In order to ensure that our tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Similarly, the State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health as tap water.



THE LONG ISLAND AQUIFER SYSTEM

The population served by the Hicksville Water District during 2019 was approximately 48,000. The total amount of water withdrawn from the aquifer in 2019 was 2.35 billion gallons, of which approximately 94.4% was billed directly to consumers, 2.6% was used for flushing, fire protection and other hydrant use, 1.8% was lost to system breaks and leaks and 1.2% was used for system testing and monitoring (total 100% accounted for water). The District has enacted a rigorous leak detection and system repair program to minimize water loss due to leaks and breaks.

WATER TREATMENT

The Hicksville Water District provides treatment at all wells to improve the quality of the water pumped prior to distribution to the consumer. The pH of the pumped water is adjusted upward to reduce corrosive action between the water and water mains and in-house plumbing by the addition of sodium hydroxide. Air stripping treatment units for VOC removal are located at Plant Nos. 1, 4, 5, 6, 8 and 9. The District also adds small amounts of calcium hypochlorite (chlorine) as a disinfection agent and to prevent growth of bacteria in the water distribution system. A nitrate removal system is currently being utilized at Plant Nos. 1, 6, and 8. A granular activated carbon (GAC) system is employed at Plant Nos. 10 and 11.

WATER CONSERVATION MEASURES

The underground water system of Long Island has more than enough water for present water demands. However, saving water will ensure that our future generations will always have a safe and abundant water supply.

Residents of the District can also implement their own water conservation measures such as retrofitting plumbing fixtures with low flow restrictors, modifying automatic lawn sprinklers to include rain sensors, repairing leaks in the home, installing water conservation fixtures/applications and maintaining a daily awareness of water conservation in their personal habits. In addition, the Nassau County Lawn Sprinkler Regulations are still in effect. Besides protecting our precious underground water supply, water conservation will produce a cost savings to the consumer in terms of both water and energy bills (hot water).

COST OF WATER

The District utilizes a step billing schedule as shown with the average consumer being billed at \$0.90 per 1,000 gallons.

QUARTERLY WATER RATES

Consumption (gallons)	Charges
Up to 10,000	\$9.00 minimum
11,000 - 26,000	\$1.00/thousand gallons
27,000 - 46,000	\$1.25/thousand gallons
47,000 - 66,000	\$1.75/thousand gallons
Over 67,000	\$2.35/thousand gallons

WATER QUALITY

In accordance with State regulations, the Hicksville Water District routinely monitors your drinking water for numerous parameters. We test your drinking water for coliform bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes and synthetic organic contaminants. Over 135 separate parameters are tested for in each of our wells numerous times per year. The table presented on page 3 depicts which parameters or contaminants were detected in the water supply. It should be noted that many of these parameters are naturally found in all Long Island drinking water and do not pose any adverse health effects.

CONTACTS FOR ADDITIONAL INFORMATION

We are pleased to report that our drinking water is safe and meets all Federal and State requirements. If you have any questions about this report or the Hicksville Water District, please contact Water District Superintendent Paul J. Granger at (516) 931-0184 or the Nassau County Department of Health at (516) 227-9692. We want our valued customers to be informed about our water system. If you want to learn more, please attend any of our regularly scheduled Board meetings. They are normally held on the second and fourth Tuesday of each month at 5:00 p.m. at the Water District office.

The Hicksville Water District routinely monitors for different parameters and possible contaminants in your drinking water as required by Federal and State laws. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some impurities. It's important to remember that the presence of these impurities does not necessarily pose a health risk. For more information on contamination and potential health risks, please contact the USEPA Safe Drinking Water Hotline at 1-800-426-4791 or www.epa.gov/safewater.

Some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk to infec-

tion by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

During 2017, the District collected 40 samples for lead and copper. The next round of samples will occur this year. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Hicksville Water District 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 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Some of the water from the Hicksville Water District has elevated levels of nitrates, but well below the maximum contaminant level of 10.0 parts per million. Nitrate in drinking water at levels about 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. The source of the nitrates is the nitrogen in fertilizers and from on-site septic systems. If you are caring for an infant you should ask advice from your health care provider.

2019 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Lead & Copper							
Copper	No	July, August & September 2017	0.0024 - 0.076 0.053 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July, August & September 2017	ND - 5.1 ND ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Inorganic Contaminants							
Selenium	No	09/16/19	ND - 2.1	ug/l	n/a	MCL = 50	Industrial/Commercial discharge
Sodium	No	09/19/19	6.8 - 34.9	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Ammonia	No	09/10/19	ND - 1.2	mg/l	n/a	No MCL	Runoff from fertilizer and leaching from septic tanks and sewage
Chloride	No	09/19/19	7.1 - 69.3	mg/l	n/a	MCL = 250	Naturally occurring
Calcium	No	09/19/19	5.6 - 16.7	mg/l	None	No MCL	Naturally occurring
Iron	No	09/09/19	ND - 25.0	ug/l	n/a	MCL = 300	Naturally occurring
Zinc	No	09/09/19	ND - 0.11	mg/l	n/a	MCL = 5	Naturally occurring
Nitrate	No	03/06/19	3.6 - 9.7	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Magnesium	No	09/19/19	2.3 - 5.9	mg/l	n/a	No MCL	Naturally occurring
Barium	No	09/19/19	0.0021 - 0.022	mg/l	n/a	MCL = 2.0	Naturally occurring
Nickel	No	09/10/19	0.0006 - 0.0052	ug/l	n/a	No MCL	Naturally occurring
Sulfate	No	09/19/19	ND - 22.4	mg/l	n/a	MCL = 250	Naturally occurring
Total Alkalinity	No	11/07/19	2.1 - 27.8	mg/l	n/a	No MCL	Naturally occurring
Calcium Hardness	No	09/19/19	13.9 - 41.7	mg/l	n/a	No MCL	Naturally occurring
Total Hardness	No	09/19/19	23.4 - 66.0	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids (TDS)	No	09/19/19	66.0 - 225.0	mg/l	n/a	No MCL	Naturally occurring
Perchlorate	No	11/18/19	ND - 4.2	ug/l	0	AL = 18 ⁽⁴⁾	Fertilizer
Disinfection By-Products							
Total Trihalomethanes	No	03/13/19	ND - 19.6	ug/l	0	MCL = 80	Disinfection By-Products
Volatile Organic Contaminants							
Trichloroethene	No	05/08/19	ND - 1.3	ug/l	0	MCL = 5	Industrial/Commercial discharge
Perfluorochemicals - UCMR3⁽⁵⁾							
Perfluorobutanesulfonic Acid	No	10/21/19	ND - 2.3	ng/l	0	MCL = 50,000	Industrial Discharge
Perfluoroheptanoic Acid	No	07/31/19	ND - 16.7	ng/l	0	MCL = 50,000	Industrial Discharge
Perfluorohexanesulfonic Acid	No	10/21/19	ND - 17.5	ng/l	0	MCL = 50,000	Industrial Discharge
Perfluorononanoic Acid	No	08/14/19	ND - 19.8	ng/l	0	MCL = 50,000	Industrial Discharge
Perfluorooctanesulfonic Acid (PFOS)	No	08/14/19	ND - 111.0 ⁽⁶⁾	ng/l	0	HA = 70	Industrial Discharge ⁽⁷⁾
Perfluorooctanoic Acid (PFOA)	No	08/14/19	ND - 11.9	ng/l	0	HA = 70	Industrial Discharge ⁽⁷⁾
Radionuclides							
Gross Alpha	No	09/19/19	0.297 - 4.12	pCi/L	n/a	MCL = 15	Naturally occurring
Gross Beta	No	09/25/19	1.29 - 4.0	pCi/L	n/a	MCL = 50	Naturally occurring
Radium 226 & 228 Combined	No	09/23/19	0.998 - 2.87	pCi/L	n/a	MCL = 5 ⁽⁸⁾	Naturally occurring
Uranium	No	09/19/19	0.149 - 2.06	ug/l	n/a	MCL = 30	Naturally occurring

2019 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS (cont'd.)

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Unregulated Contaminant Monitoring Rule - Phase 3 (UCMR3) ⁽⁹⁾							
1,4-dioxane	No	08/26/19	0.13 - 24.0	ug/l	n/a	HA = 35	Industrial/Commercial discharge ⁽¹⁰⁾
Strontium	No	11/19/14	ND - 26.7	ug/l	n/a	HA = 4000	Naturally occurring
Unregulated Contaminant Monitoring Rule - Phase 4 (UCMR4) ⁽⁹⁾							
Manganese	No	03/14/18	0.42 - 42.3	ug/l	n/a	MCL = 300 ⁽¹¹⁾	Naturally occurring
HAA5	No	09/25/18	0.47 - 1.1	ug/l	n/a	MCL = 60	Disinfection By-Products
HAA6Br	No	08/25/18	1.65 - 1.98	ug/l	n/a	No MCL	Disinfection By-Products
HAA9	No	09/28/18	1.65 - 1.98	ug/l	n/a	No MCL	Disinfection By-Products

Definitions:

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG) - 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 Disinfection 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 Disinfection 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 contaminants.

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

Health Advisory (HA) - An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a health advisory is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State and local officials.

Milligrams per liter (mg/l) - Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l) - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms (ng/L) - Corresponds to one part of liquid in one trillion parts of liquid. (Parts per trillion-ppt).

Nephelometric Turbidity Unit (NTU) - Signifies that the instrument is measuring scattered light from the sample at a 90-degree angle from the incident light.

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

pCi/L - pico Curies per Liter is a measure of radioactivity in water.

⁽¹⁾ - During 2017, we collected and analyzed 40 samples for lead and copper. The 90th percentile level is presented in the table. The action levels for lead and copper were not exceeded at any site. The next round of sampling and testing will occur in 2020. The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

⁽²⁾ - No MCL has been established for sodium. However, 20 mg/l is a recommended guideline for people on high restricted sodium diets and 270 mg/l for those on moderate sodium diets.

⁽³⁾ - TT (Treatment Technique) - A required process intended to reduce the level of a contaminant in drinking water.

⁽⁴⁾ - Perchlorate is an unregulated contaminant. However, the NYS Dept. of Health has established an action level of 18.0 ug/l.

⁽⁵⁾ - The US environmental Protection Agency (EPA) has established a life time health advisory level (HAL) of 70 parts per trillion (ppt) for PFOA and PFOS combined. The new York State (NYS) proposed maximum contaminant level (MCL) is 10 ppt for PFOA and 10ppt for PFOS.

⁽⁶⁾ - Result exceeded Health Advisory and Well No. 5-2 was taken off line on August 15, 2019.

⁽⁷⁾ - PFOS has been used to make carpets, leathers, textiles, fabrics for furniture, paper packaging, and other materials that are resistant to water, grease, or stains. It is also used in firefighting foams at airfields. Many of these uses have been phased out by its primary U.S. manufacturer; however, there are still some ongoing uses.

⁽⁸⁾ - MCL is for Combined Radium 226 & 228.

⁽⁹⁾ - UCMR - Unregulated Contaminant Monitoring Rule is a Federal water quality sampling program where water suppliers sample and test their source water for 1 year. Results will be used by the USEPA to determine if the contaminants need to be regulated in the future.

⁽¹⁰⁾ - It is used as a solvent for cellulose formulations, resins, oils, waxes and other organic substances. It is also used in wood pulping, textile processing, degreasing, in lacquers, paints, varnishes, and stains; and in paint and varnish removers.

⁽¹¹⁾ - If iron and manganese are present, the total concentration of both should not exceed 500 ug/l.

SOURCE WATER ASSESSMENT

The NYSDOH, with assistance from the local health department and the CDM Consulting firm, has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how rapidly contaminants can move through the subsurface to the wells. The susceptibility of a water supply well to contamination is dependent upon both the presence of potential sources of contamination within the well's contributing area and the likelihood that the contaminant can travel through the environment to reach the well. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. Please refer to section "Water Quality" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Our drinking water is derived from 14 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and all of the wells as having a high susceptibility to nitrates. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes and commercial/industrial facilities and related activities in the assessment area. The high susceptibility to nitrate contamination is attributable to unsewered, high density residential land use and related practices, in the assessment area, such as fertilizing lawns.

A copy of the assessment, including a map of the assessment area, can be reviewed by contacting the District Office.

The Hicksville Water District conducts over 10,000 water quality tests throughout the year, testing for over 135 different contaminants which have been undetected in our water supply including:

Arsenic	Picloram	1,1,1-Trichloroethane
Cadmium	Dicamba	1,1-Dichloropropene
Chromium	Pentachlorophenol	Total Chloroform
Mercury	Hexachlorocyclopentadiene	1,2-Dichloropropene
Ammonia	bis(2-Ethylhexyl)adipate	Dibromomethane
Silver	bis(2-Ethylhexyl)phthalate	Trans-1,3-Dichloropropene
Color	Hexachlorobenzene	cis-1,3-Dichloropropene
1,2-Dichloroethene	Benzo(A)Pyrene	1,1,2-Trichloroethane
Odor	Aldicarb Sulfone	1,3-Dichloropropene
Fluoride	Aldicarb sulfoxide	Chlorobenzene
Tetrachloroethene	Aldicarb	1,1,1,2-Tetrachloroethane
Nitrite	Total Aldicarb	Bromobenzene
Detergents (MBAS)	Oxamyl	1,1,2,2-Tetrachloroethane
Free Cyanide	Methomyl	1,2,3-Trichloropropene
Antimony	3-Hydroxycarbofuran	2-Chlorotoluene
Beryllium	Carbofuran	4-Chlorotoluene
Thallium	Carbaryl	1,2-Dichlorobenzene
Lindane	Glyphosate	1,3-Dichlorobenzene
Heptachlor	Diquat	1,4-Dichlorobenzene
Aldrin	Endothall	1,24-Trichlorobenzene
Heptachloro Epoxide	1,2-Dibromoethane (EDB)	Hexachlorobutadiene
Dieldrin	1,2-Dibromo-3-Chl.Propane	1,2,3-Trichlorobenzene
Endrin	Dioxin	Toluene
Methoxychlor	Chloroacetic Acid	Ethylbenzene
Toxaphene	Bromoacetic Acid	M,P-Xylene
Chlordane	Dichloroacetic Acid	O-Xylene
Total PCBs	Trichloroacetic Acid	Styrene
Propachlor	Dibromoacetic Acid	Isopropylbenzene (Cumene)
Alachlor	Total Haloacetic Acid	N-Propylbenzene
Simazine	Bromodichloromethane	1,3,5-Trimethylbenzene
Atrazine	Vinyl Chloride	Tert-Butylbenzene
Metolachlor	Bromomethane	1,2,4-Trimethylbenzene
Metribuzin	Chloroethane	Sec-Butylbenzene
Butachlor	Chlorodifluoromethane	4-Isopropyltoluene (P-Cumene)
2,4-D	Methylene Chloride	N-Butylbenzene
2,4,5-TP (Silvex)	Trans-1,2-Dichloroethene	1,1-Dichloroethane
Dinoseb	2,2-Dichloropropene	cis-1,2-Dichloroethene
Dalapon	Bromochloromethane	Methyl-tert-butyl-ether (MTBE)
Bromoform	Dibromochloromethane	Dichlorodifluoromethane
Dichlorodifluoromethane	1,2-Dichloroethane	Manganese

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2019, are available at the Hicksville Water District office which is located at 4 Dean Street, Hicksville New York and the local Public Library.

We, at the Hicksville Water District, work around the clock to provide top quality water to every tap throughout the community. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.