

# 2021 drinking water quality report

HICKSVILLE WATER DISTRICT  
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902829

## ANNUAL WATER SUPPLY REPORT

MAY 2022

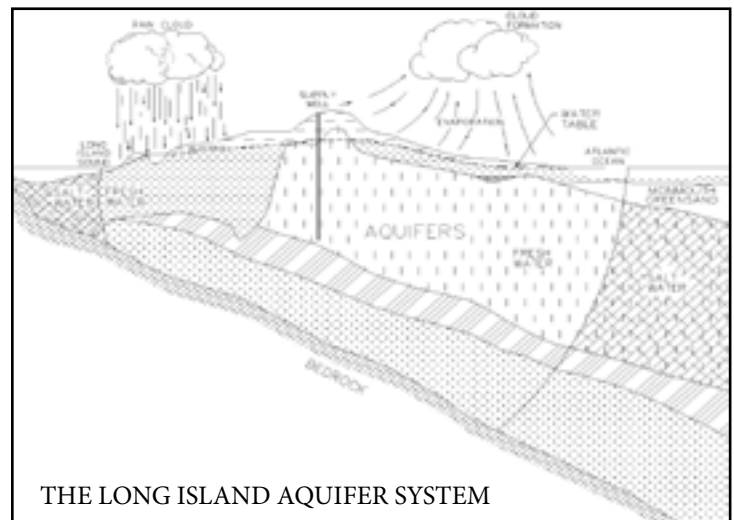
The Hicksville Water District is pleased to present this year's Water Quality Report. The report is required to be delivered to all residents of our District in compliance with Federal and State regulations. This report is designed to inform you about the quality of water and services we deliver to you 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 radiological 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 2021 was approximately 48,000. The total amount of water withdrawn from the aquifer in 2021 was 2.41 billion gallons, of which approximately 85% was billed directly to consumers, 3.0% was used for flushing, fire protection and other hydrant use, 4% was lost to system breaks and leaks and 2.0% was used for system testing and monitoring (total 94% 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. The District constructed Advanced Oxidation Process (AOP) treatment systems at Plant Nos. 1 and 4 and is proud to announce that both systems were placed in service in September 2020. The District is currently commissioning AOP treatment systems for operation summer 2022 at Plant Nos. 5 and 9. The District did not utilize Well Nos. 5-2 and 5-3 in 2021 due to elevated contamination. These wells will not be utilized until wellhead treatment systems are in service.

## 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 should be advised that the District currently operates a rebate program to incentivize customers to adopt the use of smart irrigation system controllers. The program is part of the District's conservation efforts, during which the District will give rebates of \$150 to qualifying applicants who are among the District's largest water users. The rebates available to those who use this water-saving technology are one of the many steps the District is taking to reduce water consumption by 15 percent and protect Long Island's sole-source aquifer.

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/appliances 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).

## 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 160 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, P.E. 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](http://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-

## COST OF WATER

The District utilizes a step billing schedule as shown with the average consumer being billed at \$1.20 per 1,000 gallons.

### QUARTERLY WATER RATES

Consumption (gallons)	Charges
Up to 10,000	\$12.00 minimum
11,000 - 26,000	\$1.30/thousand gallons
27,000 - 46,000	\$1.70/thousand gallons
47,000 - 66,000	\$2.40/thousand gallons
Over 67,000	\$3.20/thousand gallons

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

During 2020, the District collected 30 samples for lead and copper. The next round of samples will occur in 2023. 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.

# 2021 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
<b>Lead &amp; Copper</b>							
Copper	No	July/August/September 2020	0.0055 - 0.059 0.036 <sup>(1)</sup>	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	July/August/September 2020	ND - 2.7 ND <sup>(1)</sup>	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Selenium	No	09/21/21	ND - 2.0	ug/l	n/a	MCL = 50	Industrial/Commercial discharge
Sodium	No	09/07/21	5.7 - 21.0	mg/l	n/a	No MCL <sup>(2)</sup>	Naturally occurring
Chloride	No	09/27/21	5.1 - 35.7	mg/l	n/a	MCL = 250	Naturally occurring
Calcium	No	09/21/21	3.5 - 12.8	mg/l	None	No MCL	Naturally occurring
Color	No	11/29/21	ND - 6.0	Units	n/a	MCL = 15	Naturally occurring
Iron	No	04/15/21	ND - 37	ug/l	n/a	MCL = 300	Naturally occurring
Zinc	No	09/20/21	ND - 0.072	mg/l	n/a	MCL = 5	Naturally occurring
Nitrite	No	11/29/21	ND - 0.051	mg/l	1.0	MCL = 1.0	Runoff from fertilizer and leaching from septic tanks and sewage
Nitrate	No	11/08/21	ND - 7.0	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Magnesium	No	09/21/21	1.3 - 4.1	mg/l	n/a	No MCL	Naturally occurring
Barium	No	09/21/21	0.0004 - 0.024	mg/l	n/a	MCL = 2.0	Naturally occurring
Nickel	No	09/07/21	ND - 1.7	ug/l	n/a	No MCL	Naturally occurring
Antimony	No	11/15/21	ND - 1.1	mg/l	n/a	MCL = 250	Naturally occurring
Perchlorate	No	03/11/21	0.4 - 5.46	ug/l	0	AL = 18 <sup>(3)</sup>	Fertilizer
<b>Disinfection By-Products</b>							
Total Trihalomethanes	No	09/14/21	ND - 3.6	ug/l	0	MCL = 80	Disinfection By-Products
<b>Volatile Organic Contaminants</b>							
1,1-Dichloroethane	No	04/08/21	ND - 1.0	ug/l	0	MCL = 5	Industrial/Commercial discharge
Dichlorodifluoromethane	No	11/01/21	ND - 1.4	ug/l	0	MCL = 5	Industrial/Commercial discharge
Trichloroethene	No	05/05/21	ND - 1.2	ug/l	0	MCL = 5	Industrial/Commercial discharge
cis-1,2-Dichloroethene	No	04/08/21	ND - 0.51	ug/l	0	MCL = 5	Industrial/Commercial discharge
<b>Radionuclides</b>							
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 <sup>(4)</sup>	Naturally occurring
Uranium	No	09/19/19	0.149 - 2.06	ug/l	n/a	MCL = 30	Naturally occurring
<b>Disinfectant</b>							
Chlorine Residual	No	Continuous	0.22 - 1.12	mg/l	n/a	MRDL = 4.0	Measure of disinfectant
<b>Physical Characteristics</b>							
pH	No	Continuous	7.04 - 8.75	pH units	n/a	7.5 - 8.5 <sup>(5)</sup>	Measure of water acidity or alkalinity
Total Alkalinity	No	11/10/21	2.8 - 40.1	mg/l	n/a	No MCL	Naturally occurring
Calcium Hardness	No	09/07/21	11.1 - 20.4	mg/l	n/a	No MCL	Naturally occurring
Total Hardness	No	09/21/21	20.8 - 33.4	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids (TDS)	No	09/27/21	31.0 - 170.0	mg/l	n/a	No MCL	Naturally occurring

# 2021 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
<b>Synthetic Organic Compounds (SOCs)</b>							
1,4-Dioxane	No	12/06/21	ND - 2.1	ug/l	n/a	MCL = 1.0 <sup>(6)</sup>	Industrial/Commercial discharge <sup>(7)</sup>
Perfluorooctanoic Acid (PFOA)	No	11/08/21	ND - 6.1	ng/l	0	HA = 70 <sup>(8)</sup> MCL = 10.0	Industrial discharge <sup>(9)</sup>
Perfluorooctanesulfonic Acid (PFOS)	No	08/21/21	ND - 4.9	ng/l	0	HA = 70 <sup>(8)</sup> MCL = 10.0	Industrial discharge <sup>(9)</sup>
Perfluoroheptanoic Acid	No	12/06/21	ND - 6.3	ng/l	0	MCL = 50,000	Industrial discharge
Perfluorohexanesulfonic Acid	No	11/17/21	ND - 2.2	ng/l	0	MCL = 50,000	Industrial discharge
Perfluorononanoic Acid (PFNA)	No	12/06/21	ND - 5.7	ng/l	0	MCL = 50,000	Industrial discharge
<b>Perfluorochemicals - UCMR3<sup>(5)</sup></b>							
Chlorate	No	04/26/21	ND - 22.0	ug/l	0	No MCL	Disinfection By-Products
Hexavalent Chromium	No	11/29/21	ND - 0.38	ug/l	0	No MCL	Natural deposits
<b>Unregulated Contaminant Monitoring Rule - Phase 4 (UCMR4)<sup>(9)</sup></b>							
Manganese	No	03/14/18	0.42 - 42.3	ug/l	n/a	MCL = 300 <sup>(10)</sup>	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.

<sup>(1)</sup> - During 2020, we collected and analyzed 30 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 2023. 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.

<sup>(2)</sup> - 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.

<sup>(3)</sup> - Perchlorate is an unregulated contaminant. However, the NYS Dept. of Health has established an action level of 18.0 ug/l.

<sup>(4)</sup> - MCL is for Combined Radium 226 & 228.

<sup>(5)</sup> - As per Nassau County Department of Health guidelines.

<sup>(6)</sup> - 1,4-Dioxane - The New York State (NYS) established an MCL for 1,4-Dioxane as 1 part per billion (ppb) effective August 26, 2020.

<sup>(7)</sup> - 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.

<sup>(8)</sup> - 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) has established a maximum contaminant level (MCL) at 10 ppt for PFOA and 10ppt for PFOS effective August 2020.

<sup>(9)</sup> - PFOA/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 fire fighting foams at airfields. Many of these uses have been phased out by its primary U.S. manufacturer; however, there are still some ongoing uses.

<sup>(10)</sup> - 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 123 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-Dichloropropane
Ammonia	bis(2-Ethylhexyl)adipate	Dibromomethane
Silver	bis(2-Ethylhexyl)phthalate	Trans-1,3-Dichloropropene
Turbidity	Hexachlorobenzene	cis-1,3-Dichloropropene
Sulfate	Benzo(A)Pyrene	1,1,2-Trichloroethane
Odor	Aldicarb Sulfone	1,3-Dichloropropane
Fluoride	Aldicarb sulfoxide	Chlorobenzene
Tetrachloroethene	Aldicarb	1,1,1,2-Tetrachloroethane
Detergents (MBAS)	Total Aldicarb	Bromobenzene
Free Cyanide	Oxamyl	1,1,2,2-Tetrachloroethane
Acetone	Methomyl	1,2,3-Trichloropropane
Chloroform	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	1,2,4-Trichlorobenzene
Heptachloro Epoxide	1,2-Dibromoethane (EDB)	Hexachlorobutadiene
Dieldrin	1,2-Dibromo-3-Chloropropane	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	Methyl-tert-butyl-ether (MTBE)
Dinoseb	2,2-Dichloropropane	Perfluorobutanesulfonic Acid
Dalapon	Bromochloromethane	
Bromoform	Dibromochloromethane	
1,1,2-Trichloroethane	1,2-Dichloroethane	
Chlorite	Manganese	
Trichlorofluoromethane	Carbon Tetrachloride	
Benzene	1,1-Dichloroethene	

## MCL DEFERRAL

In October 2020, the District received a deferral from the new Maximum Contaminant Level (MCL) established by the New York State Department of Health for 1,4-Dioxane, PFOA and PFOS. This deferral delays the 1.0 ppb MCL for 1,4-Dioxane and 10.0 ppt MCL for PFOA and PFOS up until August 26, 2022, to allow the District time to construct treatment facilities. For more information on the deferral, please visit <https://hicksvillewater.org/wp-content/uploads/2020/11/Complete-Deferral-Notice-Package-as-of-11.12.2020.pdf>. The District will also be providing quarterly updates to the emerging contaminant MCL Deferral as presented on our website <https://hicksvillewater.org/wp-content/uploads/2021/04/Monthly-Deferral-Report-Update-for-April-2021.pdf>. The Deferral is attached as Appendix A.

Copies of the Supplemental Data Package, which includes the water quality data for each of our supply wells utilized during 2020, 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.*

## **APPENDIX A**

# **PUBLIC NOTIFICATION OF MCL DEFERRAL**



# Hicksville Water District

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER** **Deferral Issued for PFOA, PFOS and 1,4-Dioxane at Hicksville Water District**

### **Why are you receiving this notice/information?**

You are receiving this notice because testing of our public water system found the chemicals perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS) and 1,4-Dioxane in your drinking water above New York State's maximum contaminant level (MCL) of 10 ppt for PFOA/PFOS and 1 ppb for 1,4-dioxane. The MCLs are set well below levels known to cause health effects in animal studies. Therefore, consuming water with PFOA, PFOS or 1,4-dioxane at the level detected does not pose a significant health risk. Your water continues to be acceptable for all uses.

The Hicksville Water District has submitted, and the New York State Department of Health (Department) has issued, a deferral to the Hicksville Water District. When a public water system is issued a deferral, the water system agrees to a schedule for corrective action and compliance with the new MCLs. In exchange, the Department agrees to defer enforcement actions, such as assessing fines, if the water district is meeting the established deadlines. We are required to update the Department and the Nassau County Department of Health each calendar quarter on the status of our projects. If we do not meet the agreed upon deadlines, the Department can resume enforcement.

### **What are the health effects of PFOA/PFOS?**

The available information on the health effects associated with PFOA/PFOS, like many chemicals, comes from studies of high-level exposure in animals or humans. Less is known about the chances of health effects occurring from lower levels of exposure, such as those that might occur in drinking water. As a result, finding lower levels of chemicals in drinking water prompts water suppliers and regulators to take precautions that include notifying consumers and steps to reduce exposure.

PFOA and PFOS has caused a wide range of health effects when studied in animals that were exposed to high levels. Additional studies of high-level exposures of PFOA and PFOS in people provide evidence that some of the health effects seen in animals may also occur in humans. The most consistent findings in animals were effects on the liver and immune system and impaired fetal growth and development. The United States Environmental Protection Agency considers PFOA and PFOS as having suggestive evidence for causing cancer based on studies of animals exposed to high levels of this chemical over their entire lifetimes.

At the level of PFOA and PFOS detected in your water, exposure from drinking water and food preparation is well below PFOA and PFOS exposures associated with health effects.



## **Hicksville Water District**

### **What are the health effects of 1,4-dioxane?**

Laboratory studies show that 1,4-dioxane caused liver cancer in animals exposed at high levels throughout their lifetime. Other types of cancer have also been reported, although less consistently than liver cancer. There is no evidence of 1,4-dioxane cancer effects in humans. The United States Environmental Protection Agency considers 1,4-dioxane a likely human carcinogen based upon studies of animals exposed to high levels of this chemical over their entire lifetimes.

At the level of 1,4-dioxane detected in your water, exposure from drinking water and food preparation is well below 1,4-dioxane exposures associated with health effects.

### **What is New York State doing about PFOA, PFOS and 1,4-Dioxane in public drinking water?**

The New York State Department of Health (NYS DOH) has adopted a drinking water regulation that requires all public water systems to test for PFOA, PFOS and 1,4-dioxane. If found above the MCLs, the water supplier must take steps to lower the level to meet the standard. Exceedances of the MCL signal that steps should be taken by the water system to reduce contaminant levels.

### **What is being done to remove these contaminants?**

Amidst the pandemic, the Hicksville Water District has continued to work diligently to outfit all our water treatment facilities with the most up-to-date treatment systems. In addition, the Hicksville Water District has removed all wells from service that have detectable PFOA and PFOS levels above 10 ppt. This action was promptly undertaken during August of 2019. We have installed state of the art advanced oxidation process wellhead treatment for the removal of 1,4 dioxane and polishing of PFAS at our most impacted facilities. Following a rigorous demonstration and testing period to confirm safety and reliability to the NYS DOH, these treatment systems were placed into service during October 2020. The systems presently remove 1,4 dioxane and trace levels of PFOA and PFOS to below detection limits at our Plants 1 and 4. Interim treatment measures for our other facilities impacted by 1,4 dioxane included the issuance of emergency resolutions allowing the District to move swiftly in preordering the necessary treatment equipment and completion of the necessary planning and piloting work. The District is presently implementing emergency interim wellhead treatment systems at our Plants 5 and 9. The interim treatment systems are scheduled to be operational during the summer of 2021. Design of a permanent treatment system for our Plant 8 is underway with construction commencing during early 2021. Our proactive planning includes operational changes to minimize the use of supply wells impacted by 1,4 dioxane. Our control system allows for the first on and last off operation of supply wells with 1,4 dioxane detections of less than 1 ppb. The District has also established a procedure for sampling the distribution system for 1,4 dioxane, PFOA and PFOS to assess mitigation efforts.





## Hicksville Water District

Additional information will be shared as further testing and progress occurs. This process is similar for any chemical detected in public drinking water that requires mitigation. The compliance timetable will ensure that your drinking water will meet the MCL as rapidly as possible. The deferral is effective until August 25, 2022.

### Where can I get more information?

For more information, please contact Paul J. Granger, P.E.; Superintendent of the Hicksville Water District at Phone:516.931.0184 or e-mail: [info@hicksvillewater.org](mailto:info@hicksvillewater.org)

You can also contact the Nassau County Department of Health, Office of Public Water Supply Protection and Groundwater Assessment at (516) 227-9692.

If you have additional questions about these contaminants and your health, talk to your health care provider who is most familiar with your health history and can provide advice and assistance about understanding how drinking water may affect your personal health.

**Public Water System ID#** NY2902829

Hicksville Water District

4 Dean Street

Hicksville, NY 11801

**Date:** October 30, 2020