

2019 drinking water quality report

INC. VILLAGE OF HEMPSTEAD WATER DEPARTMENT
PUBLIC WATER SUPPLY IDENTIFICATION NO. 2902827

ANNUAL WATER SUPPLY REPORT

APRIL 2020

CONSUMER CONFIDENCE REPORT and
ANNUAL WATER SUPPLY STATEMENT

for the
INCORPORATED VILLAGE OF HEMPSTEAD

A Message from the Mayor

Dear Hempstead Village Resident:

On behalf of the Village's Water Department, I am pleased to provide you with a copy of our **CONSUMER CONFIDENCE REPORT and ANNUAL WATER SUPPLY STATEMENT**. This report is provided each year to give you important information about the quality of drinking water in the Village of Hempstead, pursuant to state and federal regulations.

Water is one of our most precious natural commodities, and our drinking water supply is both safe and plentiful. In fact, Long Island has one of the safest and most tightly regulated public water supply systems in the entire country, and the New York State Department of Health is in the process of adopting regulations for new contaminants including 1,4 Dioxane.

We must do everything possible to ensure that both the quality and quantity of our drinking water is protected now and in the future. To achieve these objectives, the Village continues to implement projects that improve the safety, reliability and cost effectiveness of the water system including new treatment systems, leak detection, well screen cleaning, piping, pump and valve replacements and security improvements. The Village worked diligently to obtain past grants and we will continue efforts to secure additional funding sources to protect our water quality and reduce the cost burden on our residents.

Last summer, the Village issued a water conservation alert asking residents to continue efforts to conserve water while treatment systems for several wells were under construction to remove a compound found in our water supply.

Thanks to the cooperation of our residents in conserving water, overall pumpage was reduced and we were able to get through the 2019 peak summer water usage season without having to enforce any mandatory water restriction measures. Residents should be aware that our Water Conservation Alert is still in effect so we ask that you continue practicing conservation measures on an ongoing basis in order to further protect this valuable resource. Tips on how to conserve water can be found in this report as well as on our Village website at: www.villageofhempstead.org.

An aeration tower treatment system project is now completing construction for the wells at Laurel Avenue, and further improvements include planning for water wells at Kennedy Park and new advanced oxidation treatment systems to address emerging contaminants at existing wells.

This report provides all the information required under both state and federal regulations, together with additional information that you may find useful. Included is information relative to the current status of the Water Quantity, Water Quality, & Water Conservation Program of the Incorporated Village of Hempstead. A summary of the 2019 laboratory testing results from the distribution system and a review of water conservation measures available to the Village's consumers are also provided. Laboratory testing data for each well has been placed in the Hempstead Public Library and may also be obtained at Village Hall, 99 James A Garner Way, Hempstead, New York during regular business hours (8:30 - 4:15 Monday - Friday).

In the meantime, should you have any additional questions, please contact my office at 489-3400. Thank you for your continued interest in our community and our most precious natural resource.

Sincerely,

Don

Don Ryan

Mayor of the Incorporated Village of Hempstead

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INTRODUCTION

To comply with State and Federal regulations, the Village of Hempstead issues an annual report describing the quality of our drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, we conducted over 10,000 tests on the water, for 158 different chemicals, contaminants, or water quality parameters. We detected 43 of those chemicals, contaminants, or water quality parameters in the distribution system with none of those at a level higher than what the State allows. This report provides an overview of last year's water quality,

and includes details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Mayor Don Ryan at (516) 489-3400. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. The meetings are held the first and third Tuesday of each month (except July and August only the first Tuesday) in Village Hall, and start at 7:00 PM.

SOURCE OF OUR WATER

In general, 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 tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. 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.

The New York State Department of Health (NYSDOH) 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. See section "Are There Contaminants in our Drinking Water?" for a list of the contaminants that have been detected (if any). The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from nine wells. The source water assessment has rated all of the wells as having a very high susceptibility to industrial solvents and a high susceptibility to nitrates. The elevated 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 elevated susceptibility to nitrates is due to residential land use and related practices, such as fertilizing lawns, as well as the historical use of cesspools and agricultural activities in the assessment area.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Village, as noted below.

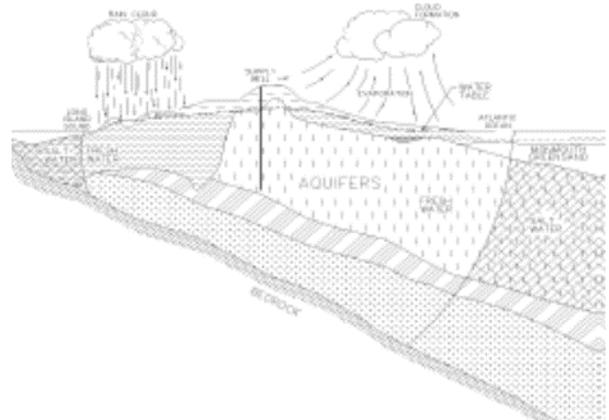
The source of water for the Village is groundwater drawn from the Magothy aquifer through nine drilled wells, ranging from 365 to 535 feet deep. These wells are located at the Clinton Street and Laurel Avenue Water Plants. During 2019, our system experienced a restriction of our water source due to detections of Freon 22 in Wells 7 & 9. The

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use of Well 2R and Well 4 was voluntarily limited due to increasing concentrations of iron. Wells 1RR, 3R, 5, 6R and 8 were available for operation throughout the year except for periods of scheduled maintenance.

Plumes of volatile organic compounds have impacted the water quality in portions of the Magothy aquifer, and water from impacted wells is treated, prior to being pumped to the distribution system, as described below.



THE LONG ISLAND AQUIFER SYSTEM

WATER TREATMENT

The pH of the untreated water is low (acidic), and some of the wells have high iron levels prior to treatment. Iron is an aesthetic problem and is not health related. The water obtained from the Village's active wells meets all water quality criteria established by Federal and State agencies after treatment.

The Incorporated Village of Hempstead provides several types of treatment at all wells to improve water quality prior to distribution of water to the consumer. The pH of the water pumped is adjusted upward by the addition of caustic soda to reduce corrosive action between the water and water mains and household plumbing. Sequestering agents in the form of sodium hexametaphosphate and linear poly- and ortho-phosphates are added to keep dissolved

iron in solution and prevent the staining of laundry and fixtures. The water from Wells 1RR, 2R, 3R, 4, 5, 6R, and 8 at Clinton Street Plant is aerated to remove volatile organics, increase pH and oxidize iron. After aeration, chlorine is added to the water to prevent bacterial growth in the distribution system. Two air stripping towers have been in operation to remove higher concentrations of volatile organics found in the water from Wells 1RR, 4, 5, 6R and 8. Manganese Green Sand filters are used to remove dissolved iron from the water produced by Wells 7 and 9 at the Laurel Avenue Plant.

Very few chemicals are utilized to accomplish water treatment. The following table lists all of the treatment methods used by the Village:

WATER TREATMENT METHODS

METHOD	PURPOSE	CHEMICALS ADDED
Chlorination	Disinfection	Sodium Hypochlorite, Calcium Hypochlorite
Air Stripping	VOC Removal	None
Nozzle Stripping	Oxidation of Iron, VOC & Carbon Dioxide Removal	None
Iron Filtration	Remove Iron to Improve Aesthetics & Reduce Staining	Sodium Hypochlorite, Potassium Permanganate
Iron Sequestering	Improve Aesthetics & Reduce Staining	Sodium Hexametaphosphate; Blend of Linear Poly & Ortho Phosphates
Corrosion Control	Reduce Metals Leaching From Household Plumbing	Caustic Soda (sodium hydroxide)

VOC = volatile organic compounds

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VILLAGE OF HEMPSTEAD WATER SYSTEM

The Village of Hempstead provides water to an official population of 53,891 full time residents (2010 Census) through 8,784 metered service connections. The water system includes 93.4 miles of water mains to serve an area of 3.8 square miles located within the village boundaries. The total amount of water withdrawn from the aquifer in 2019 was 1,788,461,000 gallons, of which approximately 91.9 percent was billed directly to consumers. The unbilled water was used for well and water main flushing, fire fighting, services to Village buildings, and losses due to leaks, inaccurate meters and water main breaks. The daily average of water treated and pumped into the distribution system was 4,899,893

gallons per day. Our highest single day was 7,853,000 gallons on July 16, 2019.

The Inc. Village of Hempstead billed its consumers through a five-tier step schedule to encourage water conservation as follows:

2019 Water Rates (Effective August 1, 2017)	
Consumption (gallons per billing period)	Billing Rate
0-50,000	\$2.78/1000 gallons
50,001-100,000	\$3.80/1000 gallons
100,001-500,000	\$5.38/1000 gallons
500,001-1,000,000	\$6.47/1000 gallons
Over 1,000,000	7.11/1000 gallons

In 2019, the annual average water charge per household was approximately \$640

SYSTEM IMPROVEMENTS

The Village has planned and secured partial funding for a number of significant improvements to the water system, which will continue in construction during the next several years. Projects now under construction include improvements to control systems and fiber optic cables; Air stripping treatment for VOC removal at Laurel Avenue; new wells at Kennedy Park; and rehabilitation and cleaning of the air stripping towers at Clinton Street.

Installation of automated read water meters on a few remaining service lines continued during 2019. Please contact the water department if you still have an old meter installed

Other projects in the planning and design stage include a pilot study and full scale design for 1,4 Dioxane treatment; Well 9 pump replacement; and planning for water transmission main improvements.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform bacteria; turbidity, nitrate, nitrite, lead and copper, and other inorganic compounds; total trihalomethanes and volatile organic compounds; and synthetic organic compounds. The table presented below depicts which compounds are detected in your drinking water. A list of the contaminants tested for but not detected is contained in later sections of this report. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, may be more than one year old.

In addition to testing the treated drinking water delivered to your tap, the village also tests the

quality of the raw water prior to treatment. The results of raw water samples from each well are contained in a Source Water Data Supplement. The Supplement has been placed in the public library and copies may be obtained at Village Hall.

It should be noted that all drinking water, including bottled water, might reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or the Nassau County Department of Health at (516) 227-9697.

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2019 DRINKING WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range) (Avg.)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Lead & Copper							
Copper	No	August & September 2019	0.052 - 0.16 0.16 ^o	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	August & September 2019	ND - 102 4.9 ^o	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Inorganic Contaminants							
pH ⁷	No	1/3/2019 8/12/2019	6.6 - 8.5	pH units	n/a	No MCL	Chemical Parameter used as a measure of acidity and alkalinity
Selenium	No	3/12/2019 12/27/2019	ND	ug/l	n/a	MCL = 50	Industrial/Commercial discharge
Manganese	No	1/15/2019 12/24/2019	ND - .011	mg/l	n/a	MCL = 300	Naturally occurring
Sodium	No	12/24/2019 12/27/2019	13.9 - 21.9	mg/l	n/a	No MCL ^o	Naturally occurring
Chloride	No	12/24/2019 12/27/2019	31.5 - 40.0	mg/l	n/a	MCL = 250	Naturally occurring
Chlorine	No	1/3/2019 12/30/2019	0.20 - 1.91	mg/l	n/a	MRDL = 4	Added to water for disinfection
Calcium	No	12/24/2019 12/27/2019	5.9 - 7.4	mg/l	None	No MCL	Naturally occurring
Iron	No	1/16/2019 12/26/2019	ND - 0.65	mg/l	n/a	MCL = 0.3	Naturally occurring
Zinc	No	12/24/2019 12/27/2019	0.047 - 0.13	mg/l	n/a	MCL = 5	Naturally occurring
Nitrate	No	12/24/2019 12/27/2019	0.1 - 0.33	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Magnesium	No	12/24/2019 12/27/2019	3.2 - 3.8	mg/l	n/a	No MCL	Naturally occurring
Barium	No	12/24/2019 12/27/2019	0.0034 - 0.0057	mg/l	n/a	MCL = 2.0	Naturally occurring
Nickel	No	12/24/2019 12/27/2019	0.0043 - 0.011	mg/l	n/a	No MCL	Naturally occurring
Sulfate	No	12/24/2019 12/27/2019	15.8 - 34.5	mg/l	n/a	MCL = 250	Naturally occurring
Total Alkalinity	No	12/24/2019 12/27/2019	ND - 2.2	mg/l	n/a	No MCL	Chemical Parameter used as a measure of alkalinity
Calcium Hardness	No	12/24/2019 12/27/2019	14.6 - 18.6	mg/l	n/a	No MCL	Chemical Parameter used as a measure of water hardness
Total Hardness	No	12/24/2019 12/27/2019	27.9 - 34.2	mg/l	n/a	No MCL	Chemical Parameter used as a measure of water hardness
Total Dissolved Solids (TDS)	No	12/24/2019 12/27/2019	86.0 - 121.0	mg/l	n/a	No MCL	Naturally occurring
LSI	No	12/24/2019 12/27/2019	Max -5.15 Min -4.49 Avg -4.795		n/a	No MCL	Chemical Parameter used as a measure of corrosivity or scale-forming tendency
Turbidity	No	12/24/2019 12/27/2019	ND	NTU	n/a	MCL = 5	Naturally occurring
Disinfection By-Products							
Total Trihalomethanes	No	6/28/2019 11/20/2019	ND - 6.0 1.67 ^o	ug/l	0	MCL = 80	Disinfection By-Products
Dibromochloromethane	No	6/28/2019 11/20/2019	ND - 2.5 0.69 ^o	ug/l	n/a	MCL = 5	Disinfection By-Product
Bromodichloromethane	No	6/28/2019 11/20/2019	ND - 1.2 0.20 ^o	ug/l	0	MCL = 80	Disinfection By-Products
Bromoform	No	6/28/2019 11/20/2019	ND - 2.3 0.77 ^o	ug/l	n/a		Disinfection By-Product

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Volatile Organic Contaminants							
Trichloroethene	No	6/28/2019 11/20/2019	ND	ug/l	0	MCL = 5	Industrial/Commercial discharge
Bacteriologicals							
Total Coliform	No	1/4/2019 12/30/2019	3.03%	Positive or Negative	n/a	TT ⁽⁵⁾ = Positive results in more than 5% of the monthly samples	Commonly found in the environment
Radionuclides							
Gross Alpha	No	12/27/2019	3.97	pCi/L	n/a	MCL = 15	Emitted by naturally occurring materials
Gross Beta	No	12/27/2019	2.37	pCi/L	n/a	MCL = 50	Emitted by naturally occurring materials
Radium 226 & 228 Combined	No	12/27/2019	1.695	pCi/L	n/a	MCL = 5 ⁽⁶⁾	Emitted by naturally occurring materials
Unregulated Contaminants ⁽⁶⁾							
Perchlorate	No	2/4/2019 11/19/2019	ND - 1.8	ug/l	0	AL = 18 ⁽⁵⁾	Fertilizer
1,4-dioxane	No	3/25/2019	1.2 - 5.3	ug/l	n/a	HA = 35	Industrial/Commercial discharge ⁽⁶⁾
Perfluorooctanoic Acid (PFOA) ⁽⁸⁾	No	2/27/2020	ND - 4.0	ng/l	n/a	HA = 10.0	Used in firefighting foams, and in materials that are resistant to water, grease, or stains ⁽¹¹⁾
Perfluorooctanesulfonic Acid (PFOS) ⁽⁸⁾	No	2/27/2020	ND - 5.4	ng/l	n/a	HA = 10.0	Used in firefighting foams, and in materials that are resistant to water, grease, or stains ⁽¹¹⁾

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 per liter (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⁾- The level presented represents the 90th percentile of the samples tested. 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 or greater than 90% of the lead 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⁾- MCL is for Combined Radium 226 & 228.

⁽⁵⁾- Perchlorate is an unregulated contaminant. However, the NYS Dept. of Health has established an action level of 18.0 ug/l.

⁽⁶⁾- UCMR3 - Unregulated Contaminant Monitoring Rule 3 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.

⁽⁷⁾-USEPA guidelines for pH are 6.5 to 8.5; NY guidelines are 7.5 to 8.5 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.

⁽⁸⁾-The U.S. Environmental Protection Agency (EPA) has established a lifetime 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 10 ppt for PFOS.

⁽⁹⁾-This level represents the highest locational running annual average calculated from the data collected.

⁽¹⁰⁾-1,4-Dioxane 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⁾- PFOA(S) 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 are being phased out by U.S. manufacturers; however, there are still some ongoing uses.

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UCMR3 DETECTED CONTAMINANTS

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
Unregulated Contaminants							
Strontium	No	11/19/2014	ND - 26.7	ug/l	n/a	HA = 4000	Naturally occurring

Definitions:

Health Advisory Level (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).

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

UNREGULATED CONTAMINANT TESTING FOR FURTHER MONITORING

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	HAL	Likely Source of Contaminant
Unregulated Contaminants						
Perfluorohexanesulfonic Acid	No	2/27/2020	ND - 2.8	ng/L	10.0	Used in firefighting foams, and in materials that are resistant to water, grease, or stains ²
Perfluorononanoic Acid	No	2/27/2020	ND - 2.0	ng/L	10.0	Used in firefighting foams, and in materials that are resistant to water, grease, or stains ²

Definitions:

Health Advisory Level (HAL) - 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).

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Nanograms per liter (ng/l) - Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion - ppt)

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

⁽¹⁾ - 1,4-Dioxane 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.

⁽²⁾ - PFO(A)S 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 are being phased out by U.S. manufacturers; however, there are still some ongoing uses.

TABLE OF CONTAMINANTS NEVER DETECTED DURING 2019

Microbiological Contaminants			
E. Coliform			
Primary (Health Related) Inorganic Parameters			
Arsenic	Silver	Cadmium	Chromium
Fluoride	Mercury	Selenium	
Secondary (Aesthetic) & Other Inorganic Parameters			
Antimony	Beryllium	Color	Free Cyanide
Nitrogen, Ammonia	Manganese	MBAS (Foaming Agents)	Turbidity
Zinc	Nitrite	Odor	
Primary (Health Related) Volatile Organic Parameters			
Benzene	Carbon tetrachloride	1,4-Dichlorobenzene	1,2-Dichloroethane
1,1-Dichloroethene	1,1,1-Trichloroethane	Vinyl Chloride	
UCMR3 Parameters			
Perfluoroheptanoic Acid	Perfluorobutanesulfonic Acid		
Other Volatile/Semi-Volatile/Non-Volatile Organic Parameters			
Bromobenzene	Bromochloromethane	Bromomethane	n-Butylbenzene
sec-Butylbenzene	tert-Butylbenzene	Chlorobenzene	Chloroethane

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Chloroform	Chloromethane	2/4-Chlorotoluene	Dibromomethane
1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene
trans-1,2-Dichloroethene	Dichlorodifluoromethane	1,2-Dichloropropane	1,3-Dichloropropane
2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene
Ethylbenzene	Trichlorofluoromethane	Hexachlorobutadiene	Isopropylbenzene (Cumene)
4-Isopropyltoluene (p-Cymene)	Methyl tert-butyl ether (MTBE)	Methylene Chloride (Dichloromethane)	n-Propylbenzene
Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene
Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane
1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene
o-Xylene	Bromoacetic acid	Dibromoacetic acid	Chloroacetic acid
Dichloroacetic acid	Trichloroacetic acid	Total Haloacetic Acid	Trichloroethene
Bromodichloromethane	Perchlorate		
Specific Organic Chemicals / Pesticides			
Aalachlor	Aldicarb	Aldicarb Sulfone	Aldicarb Sulfoxide
Atrazine	Carbofuran	Chlordane, Total	2,4-D
DBCP (1,2-Dibromo-3-Chloropropane)	Endrin	1,2-Dibromomethane (EDB)	Polychlorinated Biphenyls (PCBs)
Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor
Pentachlorophenol	Toxaphene	2,4,5-TP (Silvex)	Aldrin
Benzo(a)pyrene	Butachlor	Carbaryl	Dalapon
Di(2-ethylhexyl)adipate	Di(2-ethylhexyl)phthalate	Dicamba	Dieldrin
Dinoseb	Diquat	Endothall	Glyphosate
Hexachlorobenzene	Hexachlorocyclopentadiene	3-Hydroxycarbofuran	Methomyl
Metolachlor	Metribuzin	Oxamyl (Vydate)	Picloram
Propachlor	Simazine	2,3,7,8-TCDD (Dioxin)	

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

The Village water system is required to collect and analyze samples to demonstrate compliance with all state and federal water quality standards. 111 different contaminants, elements or compounds are routinely monitored for their presence throughout the year from all our wells, treatment facilities and the distribution system. During 2018, our distribution system missed a scheduled round of lead and copper samples to be collected from a group of private homes within the distribution system. These lead and copper samples were collected between the months of August and September of 2019 with results in the Table of Detected Parameters as tabulated above.

The Village of Hempstead Water System (HWS) received a violation from the Nassau County Department of Health (NCDOH) of the New York State Sanitary Code (NYSSC), Part 5-1.72(c)(1) – *Monthly Operation Reports* on February 28, 2019. This violation resulted from late submission of the

January 2019 Monthly Operating Report (MOR). That report was completed and submitted and all subsequent MORs were submitted on time. The water system was otherwise in compliance with all applicable State drinking water requirements.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand and or mail.

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INFORMATION ON UNREGULATED CONTAMINANTS

Our distribution system is required by the Environmental Protection Agency to participate in the Unregulated Contaminant Monitoring Rule program. This program acts as a tool for the EPA to find unregulated contaminants of concern in the nation's drinking water. The Safe Drinking Water Act gives EPA the responsibility to protect public health and to set minimum standards for drinking water. The EPA identifies contaminants that may be harmful to human health and that may be present in drinking water. The EPA works with local water systems to periodically test the water for contaminants that are not regulated to determine whether or not these contaminants occur often enough at high enough concentrations to warrant further attention.

The fourth round of sampling UCMR table 4 (or UCMR4) is currently in progress. The EPA selected 30 contaminants including 10 Cyanotoxins, which might occur in surface waters, plus 20 other compounds including metals, solvents, dyes, a food preservative, Haloacetic acids, fungicides, pesticides, herbicides, and related byproducts.

The third round of sampling is known as UCMR3 and was performed from 2013 to 2015. The EPA selected numerous contaminants divided into three lists. The "List 1" contaminants are monitored using

conventional laboratory testing methods. These contaminants include flame retardants, contaminants used in explosives, and contaminants related to insecticides, among which are seven volatile organic compounds, one synthetic organic contaminant, six metals, one oxyhalide ion (chlorate), and six perfluorinated compounds.

The "List 2" contaminants are monitored using testing methods that are relatively new. These contaminants include seven hormones (17- β -estradiol, 17- α -ethynylestradiol (ethinyl estradiol), 16- α -hydroxyestradiol (estriol), Equilin, Estrone, Testosterone, 4-androstene-3,17-dione) of which none were detected. The "List 3" contaminants include two viral contaminants for which standard procedures have not been well established. The great depth of the aquifer surrounding the Village's wells is considered to effectively filter out viruses and bacteria.

The Village continues to cooperate with EPA's nationwide sampling program and has performed monitoring for the presence of the contaminants from "List 1" and "List 2" throughout the year from all our wells. To date, six of these contaminants have been detected in our water supply.

WATER CONSERVATION MEASURES

The Incorporated Village of Hempstead continued its water conservation program during 2019. Individual customers of the Village can implement water conservation measures such as retrofitting plumbing fixtures with flow restrictors, modifying automatic lawn sprinklers to include rain sensors, repairing leaks in the home, installing water conserving fixtures and appliances, and maintaining a daily awareness of water conservation in their personal habits. Besides protecting the limited underground water supply, water conservation will produce a cost savings to the consumer in terms of both water and energy bills for hot water. Following these conservation tips can achieve significant savings:

Indoor

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If the register on the meter changed, you have a leak. The Village Water Department can also assist in certain cases by

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remotely reading your meter at a fixed interval.

- Toilets are the most common source of leaks and unnecessary use of water. Adding a few drops of food coloring to the tank will help disclose very slow leaks. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you can save more than 30,000 gallons a year.
- Do not use the toilet for flushing items that could go in a wastepaper basket. Water saving devices can be installed in older model tanks to use less water for flushing.
- Keep conservation in mind when replacing or installing plumbing fixtures, washing machines and dishwashers. Look for fixtures and appliances that are designed to do the job with less water.
- Always try to do full loads of dishes or laundry. Adjust the water level for smaller loads.
- Do not let water run when hand washing dishes, shaving or brushing teeth.
- Store water in the refrigerator to eliminate the need for running the tap for a cold drink.

Outdoor

- Nassau County Watering regulations for lawns and gardens are in effect year round. No watering is allowed between the hours of 10 AM and 4 PM. Odd numbered houses are allowed to water only on odd days of the month. Even numbered houses are allowed to water only on even days of the month.
- If your sprinkler system does not have a moisture sensor, we advise you to manually turn it off if it has rained, is raining, or is likely to start raining. According to staff at the Nassau County Cornell Cooperative Extension Center, over-watering is the cause of most lawn and garden problems. You can call them for advice at 516-292-7990 or 516-228-0426.
- Sprinkler systems should operate in the early morning hours, however make it a point to observe the operation of the system to check for faulty heads and leaking fittings. These problems waste water and cause higher bills.
- Sweep, don't wash, sidewalks; use a bucket for car washing and turn the hose on and off for rinsing.

PRECAUTIONS

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

FOR MORE INFORMATION

Call us at (516)478-6252 or visit our Web site at <https://www.villageofhempstead.org/187/Water-Plant>. For more information on lead in drinking water, contact the Nassau County Health Department at (516) 227-9692, or the New York State Department of Health directly by calling the toll-free number (within New York State) 1-800-458-1158, extension 27650, or out of state at (518) 402-7650, or by email at bpwsp@health.state.ny.us.

For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, or call the National Lead Information Center at 1-800-424-LEAD.

Reverse 911

The Village has implemented a "Reverse 911" system to allow rapid public notification during

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emergency situations. An automated system will dial the telephone numbers of all residents known to the Village and play a prerecorded message. *If any*

resident needs to update their telephone number please email the change to reverse911@villageofhempstead.gov.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all of our customers help us protect our groundwater through proper disposal of chemicals and waste. Copies of this Consumer Confidence Report and Annual Water Supply Report are available at the Incorporated Village of Hempstead, Village Hall located at 99 James A. Garner Way, Hempstead, New York. In addition, a supplemental data package is available at the Village office, which includes the full water quality data, both before and after treatment, for each well utilized during 2019.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Este informe contiene informacion muy importante sobre el agua de beber. Traduzcalo o hable con alguien que lo entienda bien.