# 2018 Annual Water Quality Report

Public Water System Identification No.
NY 2902830

Water Authority of Western Nassau County, 1580 Union Turnpike, New Hyde Park, NY 11040

## A Message from the Chairman

# THE WATER DELIVERED TO YOUR HOME MEETS ALL FEDERAL, STATE AND NASSAU COUNTY STANDARDS FOR WATER QUALITY AND SAFETY.

We are pleased to provide this year's Annual Water Quality Report. In accordance with New York State Public Health Law and Federal regulations, this report provides information about the quality of your drinking water, including a summary of the laboratory results for all testing performed by our independent laboratory during 2018.

This report is intended to aid your understanding of the source of your drinking water; help you understand the process by which safe drinking water is delivered to your home; and educate customers about the importance of preventive measures, such as source protection, that ensure a safe drinking water supply. Educated customers are more likely to help protect our drinking water sources and to appreciate the challenges and the true costs of providing safe drinking water.

The annual Chairman's Report to the customers within the Water Authority's service area is also included in this document and can be found on page 7. Each year, I am required to provide each customer with a brief financial account on the operations of the water system, including water rates, total revenues, operating and maintenance expense, interest on bonds and notes, as well as information required to be included in our Annual Water Quality Report.

The Water Authority has begun a major Air-Stripper Treatment project at Station No. 15 in Elmont. This critical project is being performed in three phases and will bring four wells back into service in the western portion of our territory. The Water Authority also engaged its engineering firm to plan, design and construct a state of the art treatment system for the removal of 1,4-Dioxane at a well site in the Village of New Hyde Park. The pilot program for this project is complete and full scale design is currently being prepared. Additional planned treatment for 1,4-Dioxane and perfluoroalkyl substances (PFAs) are being reviewed by our independent engineering firm. A three million dollar grant was obtained from New York State to help supplement the cost of this project which will cost \$15 million in its entirety.

This year's annual water quality report, as well as prior years' reports and other useful information, can be found on our website at www.wawnc.org. Additional copies of this report, as well as a supplemental package of complete water quality data of both treated and untreated water for each well placed in service during 2018, are available at our business office, located at 1580 Union Turnpike, New Hyde Park, New York, 11040.

The Water Authority has always assured the safety of our customers and employees, as well as the protection of our water system assets. We remain dedicated to providing a continuous and reliable supply of high quality drinking water and our dedicated employees look forward to serving you in 2019 and beyond.

As always, we welcome your comments and suggestions. Please contact us at (516) 327-4100 or by e-mail at inquiry@wawnc.org.

Sincerely,

John E. Ryan

Chairman

#### **About the Water Authority**

The Water Authority is a corporate governmental agency constituting a public benefit corporation which was organized and exists under and by virtue of the laws of the State of New York. The Water Authority provides the essential services of extraction, treatment, distribution and sale of water for residential, commercial, industrial and public fire protection purposes.

The Water Authority is governed by a Board of Directors consisting of 9 members, appointed by the Towns of Hempstead and North Hempstead and the Villages of Bellerose, Floral Park, Garden City, New Hyde Park, S. Floral Park and Stewart Manor for a 2-year term.

**Town of Hempstead** George Bakich

Cherie Zacker

Town of N. Hempstead Marianna Wohlgemuth

Village of Bellerose Susan Powderly

Village of Floral Park Dominick Longobardi

Village of Garden City David Osborn

Village of New Hyde Park Rainer Burger

Village of S. Floral Park Gregory Ifill

Village of Stewart Manor Christopher Gorman

The Water Authority's Board of Directors conducts regularly scheduled meetings which are generally held on the fourth Monday of each month beginning at 7:00 p.m. at our business office in New Hyde Park.

A press release is submitted to the local newspapers each month announcing the time and date of the regular meeting, as well as any specially scheduled meeting. In addition, a notice is posted on our website at www.wawnc.org, generally two weeks prior to the meeting.

#### **Lead in Drinking Water**

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. The Water Authority 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 at (800) 426-4791 or at: http://www.epa.gov/safewater/lead.

#### **Communities Served**

Bellerose Elmont

Floral Park

**Floral Park Centre** 

Franklin Square \*

**Garden City \*** 

**New Hyde Park** 

North Valley Stream \*

South Floral Park

Stewart Manor

Valley Stream \*

\* Partially served communities

### Are there contaminants in our drinking water?

As New York State ("State") regulations require, the Water Authority routinely monitors your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloaetic acids, radiological and synthetic organic compounds.

The table presented on pages 4 and 5 depicts which contaminants were detected in your drinking water. The State allows water systems to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative of the water quality, is more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. You can obtain more information about contaminants and potential health effects by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791 or the Nassau County Department of Health at (516) 227-9692.

#### Do I need to take special 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/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline at (800) 426-4791.

#### What does this information mean?

As you can see by the testing results in the table on pages 4 and 5, we have not violated a maximum contaminant level ("MCL") or any other water quality standard. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. Our comprehensive water quality monitoring and testing confirmed that there was no need to remove any well from service due to water quality in 2018, nor were there any restrictions of our water source. Wells which have aesthetic problems, such as high iron concentrations, or which have higher electrical or chemical treatment costs, are primarily used only during the summer months when the demand for water is higher.

There were many individual contaminants that were analyzed for but not detected. These non-detected contaminants include the following:

Microbiological contaminants such as turbidity;

Principal organic contaminants such as benzene, bromobenzene, chloromethane, styrene, vinyl chloride;

Specific organic chemicals and pesticides such as aldicarb, aldrin, carbofuran, dioxin, endothall, endrin, propachlor;

Physical and inorganic contaminants such as arsenic, cadmium, detergents (MBAs), fluoride, silver, thal-lium:

Unregulated contaminants such as cobalt, testosterone, molybdenum.

A complete list of non-detected contaminants can be obtained by contacting Robert Swartz, Chief Engineer, at (516) 327-4100.

#### **Water Source**

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 that 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.

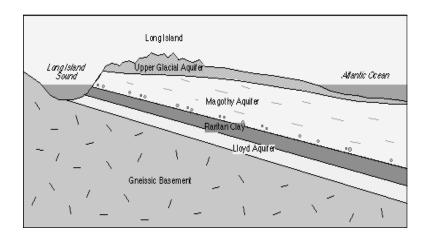
All of the water supplied by the Water Authority comes from groundwater drawn from 24 drilled wells located in the aquifer system beneath the land surface. Our wells are in the Upper Glacial, Magothy and Lloyd aquifers and range in depth from 87 to 722 feet.

#### **Water Treatment**

All well water is treated with chlorine (sodium hypochlorite) prior to distribution for disinfection purposes. Disinfection is mandated by the State Sanitary Code to assure that the water, which is free of bacteria as it is pumped from the aquifer, maintains its bacteria-free quality within the distribution system. Other treatment that the water receives before entering the distribution system includes the use of:

- Caustic soda (sodium hydroxide). This is used to neutralize the naturally acidic water found in Long Island groundwater. Raising the pH level to a neutral range of approximately 7.5 minimizes the corrosion of water mains, service lines and household plumbing.
- Zinc orthophosphate. This is a corrosion inhibitor which coats the interior surfaces of our water mains and service lines and household plumbing thereby reducing corrosion and extending their useful service life.
- Air strippers. These treatment facilities are used to remove Volatile Organic Compounds from the water prior to distribution. These compounds have entered the water supply as a result of improper disposal practices by industries and have been detected in groundwater.
- Iron removal treatment plants. These treatment facilities remove high levels of iron and manganese, which are natural occurring minerals in Long Island groundwater.

These forms of treatment all comply with applicable Federal, State and local drinking water standards.



#### **Source Water Assessment**

The Source Water Assessment was carried out by the New York State Department of Health, with assistance from the local health department and CDM, a consulting firm, to identify the vulnerability of individual wells used by public drinking water systems to potential sources of contamination by microbials, nitrates, pesticides and volatile contaminants based on current land uses and water pumping patterns.

The source water assessment for this system has been completed based on available information, evaluating possible and actual threats to this drinking water source. 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 the "Table of Detected Contaminants" found on pages 4 and 5 for a complete list of contaminants that have been detected in your drinking water. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Drinking water is derived from 21 wells. The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and most 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 high density residential and commercial 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 upon request by contacting the Water Authority's Chief Engineer, Robert Swartz, at (516) 327-4100.

TABLE OF DETECTED CONTAMINANTS								
Contaminant	Sample Date (Month/Year)	Level Detected (Maximum) (Range)	Unit Measurement	Regulatory Limit	Violation	MCLG	Sources in Drinking Water	
Total Coliform Bacteria 1	6/18	0.97% samples positive in the noted month	N/A	CAL CONTAMINANTS  TT = more than 5.0 percent of the total coliform samples are positive in one month	No	0	Naturally present in the environment	
Alkalinity, Total (as CaCO <sub>3</sub> )	1/18 to 12/18	<b>PHYS</b> 87	mg/l	GANIC CONTAMINAN  No Standard	TS No	N/A		
Ammonia (as Nitrogen)	1/18, 2/18, 3/18, 6/18,	2.8 to 87 1.7	mg/l	No Standard	No	N/A		
Barium	7/18, 10/18 1/18, 2/18, 3/18, 6/18,	ND to 1.7 62	ug/l	2,000	No	2,000	Discharge of drilling wastes; discharge from metal	
Calcium	7/18, 10/18 1/18 to 12/18	ND to 62		No Standard	No	N/A	refineries; erosion of natural deposits.	
	·	1.7 to 24	mg/l			·		
Chloride	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	82 2.4 to 82	mg/l	MCL=250	No	N/A	Naturally occurring or indicative of road salt contamination.	
Copper	6/18, 7/18, 8/18, 9/18	0.11 <sup>2</sup> ND to 0.21	mg/l	AL=1.3	No	1.3	Corrosion of household plumbing systems; erosion natural deposits; leaching from wood preservatives.	
Corrosivity (LSI)	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	-4.99 -0.96 to -4.99	SI	No Standard	No	N/A		
Dissolved Solids, Total	1/18, 2/18, 3/18, 6/18,	284	mg/l	No Standard	No	N/A		
Hardness, Total (as CaCO <sub>3</sub> )	7/18, 10/18 1/18, 2/18, 3/18, 6/18,	12 to 284 108	mg/l	No Standard	No	N/A		
Iron	7/18, 10/18 1/18 to 12/18	7.7 to 108 270	ug/l	MCL=300	No	N/A	Naturally occurring.	
Lead	6/18, 7/18,	ND to 270	ug/l	AL=15	No	0	Corrosion of household plumbing systems; erosion of	
Magnesium	8/18, 9/18 1/18, 2/18, 3/18, 6/18,	ND to 6.8	mg/l	No Standard	No	N/A	natural deposits.	
Manganese	7/18, 10/18 1/18 to 12/18	0.86 to 13 37	ug/l	MCL=300	No	N/A	Naturally occurring.	
Nickel	1/18, 2/18, 3/18, 6/18,	ND to 37	ug/l	No Standard	No	N/A	Naturally occurring.	
Nitrate (as Nitrogen)	7/18, 10/18 1/18, 2/18, 3/18, 4/18,	ND to 10 6.0	mg/l	MCL=10 4	No	10	Runoff from fertilizer use; leaching from septic tanks,	
Perchlorate	6/18, 7/18, 10/18 1/18, 2/18, 3/18, 6/18,	ND to 6.0	ug/l	MCL=18	No	N/A	sewage; erosion of natural deposits.  Oxygen additive in solid fuel propellant for rockets,	
рН	7/18, 10/18 1/18 to 12/18	ND to 1.7 8.1	N/A	No Standard	No	N/A	missiles & fireworks.	
•	, ,	5.6 to 8.1 2.5				·		
Selenium	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	ND to 2.5	ug/l	MCL=50	No	50	Erosion of natural deposits.	
Sodium	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	41 3.1 to 41	mg/l	See Table Note <sup>5</sup>	No	N/A	Naturally occurring; road salt; animal waste; water softeners.	
Sulfate	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	48 6.6 to 48	mg/l	MCL=250	No	N/A	Naturally occurring.	
Zinc	1/18, 2/18, 3/18, 6/18, 7/18, 10/18	0.27 ND to 0.27	mg/l	MCL=5	No	N/A	Naturally occurring.	
Tetrachloroethene	1/18 to 12/18	0.64	ug/l	ANIC CONTAMINANTS  MCL=5	No	N/A	Discharge from factories and dry cleaners; Waste sites;	
		ND to 0.64  SYNTHETIC	ORGANIC CO	NTAMINANTS AND PI	ESTICIDES		Spills.	
1,2-Dibromoethane (EDB)	1/18, 3/18, 4/18, 7/18, 8/18, 9/18, 10/18	24 ND to 24	ng/l	MCL=50	No	0	Discharge from petroleum containing banned additive; soil fumigant.	
Dieldrin	1/18, 3/18, 4/18, 7/18, 8/18, 9/18, 10/18	0.12 ND to 0.12	ug/l	MCL=5	No	N/A	Pesticide used in agriculture for soil and seed treatment; used in treatment of wood and mothproofing of woolen products.	
Heptachlor Epoxide	1/18, 3/18, 4/18, 7/18, 8/18, 9/18, 10/18	28 ND to 28	ng/l	MCL=200	No	0	Breakdown of heptachlor; residue of banned pesticide.	
Gross Alpha	3/18, 6/18, 8/18, 10/18	3.4	RADIOACTIV pCi/l	E CONTAMINANTS MCL=15	No	0	Erosion of natural deposits.	
Gross Beta	3/18, 6/18, 8/18, 10/18	1.1 to 3.4 4.6	pCi/l	MCL=13	No	0	Erosion of natural deposits.	
		1.6 to 4.6	•					
Combined Radium 226/228	3/18, 6/18, 8/18, 10/18	5.4 1.3 to 5.4	pCi/l	MCL=5	No	0	Erosion of natural deposits.	
Uranium	3/18, 6/18, 8/18, 10/18	3.4 0.55 to 3.4	ug/l	MCL=30	No	0	Erosion of natural deposits.	
Total Haloacetic Acids 6	3/18, 6/18, 9/18, 12/18	5.9	DISINFECTION ug/l	ON BYPRODUCTS MCL=60	No	N/A	Byproduct of drinking water chlorination.	
Total Trihalomethanes 7	3/18, 6/18, 9/18, 12/18	ND to 5.9 12.9	ug/l	MCL=80	No	N/A	Byproduct of drinking water chlorination.	
Total Timatomethanes	3/10, 0/10, 9/10, 12/18	ND to 12.9	ug/1	WCL-0U	110	IN/A	Dyploduct of diffiking water chromitation.	

TABLE OF DETECTED CONTAMINANTS (cont'd)								
Contaminant	Sample Date (Month/Year)	Level Detected (Maximum) (Range)	Unit Measurement	Regulatory Limit	Violation	MCLG	Sources in Drinking Water	
UNREGULATED CONTAMINANT MONITORING RULE								
1,4-Dioxane	2/18 to 12/18	21 1.2 to 21	ug/l	358	No	N/A	This compound may enter the environment through its use as a solvent and in textile processing, printing processes, and detergent preparations.	
Bromide	6/18, 12/18	497 88 to 497	ug/l	No Standard	No	N/A		
Total Organic Carbon	6/18, 12/18	10,400 ND to 10,400	ug/l	No Standard	No	N/A	Naturally present in the environment.	

#### **Table Definitions**

**90<sup>th</sup> Percentile Value** The values reported for lead and copper represent the  $90^{th}$  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  $90^{th}$  percentile is equal to or greater than  $90^{th}$  of the lead and copper values detected at your water system.

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

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

MCLG (Maximum Contaminant Level Goal) 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.

**mg/l (Milligrams per Liter)** Corresponds to one part of liquid in one million parts of liquid (parts per million—ppm)

**N/A** Not applicable.

- ND (Non-detects) Laboratory analysis indicates that the constituent is not present
- **ng/l (Nanograms per Liter)** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion—ppt).
- pCi/l (Picocuries per Liter) A measure of the radioactivity in water.
- **SI** (Saturation Index) A measurement of the Langelier Saturation Index (LSI). LSI is a calculated number used to predict whether water will precipitate, dissolve or be in equilibrium with calcium carbonate. A negative LSI indicates that water has no scaling potential; a positive LSI indicates that scale has the potential to form.

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

**ug/l** (Micrograms per Liter) Corresponds to one part of liquid in one billion parts of liquid (parts per billion—ppb).

#### **Table Notes**

- 1 In June 2018 total coliforms were detected in one (1) sample of the 100 monthly routine compliance samples collected in our system during that month. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful bacteria may be present. Three (3) additional samples were subsequently collected that month and total coliforms were not detected in those samples. Since total coliforms were detected in less than 5 percent of the samples collected during that month, the system did not have an MCL violation.
- 2 The value reported for copper represents the 90th percentile. In this case 54 samples were collected at your water system and the 90th percentile value was the fifth highest value (0.11 mg/l). The action level for copper was not exceeded at any of the sites tested.
- 3 The value reported for lead represents the 90th percentile. In this case 54 samples were collected at your water system and the 90th percentile value was the fifth highest value (1.3 ug/l). The action level for lead was not exceeded at any of the sites tested.
- 4 Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can

- cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.
- 5 Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
- 6 Total Haloacetic Acids mean the sum of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid.
- 7 Total Trihalomethanes (ITHMs) mean the sum of Chloroform, Bromodichloromethane, Dibromochloromethane and Bromoform.
- 8 The level represents a health advisory for 1,4-Dioxane. A health advisory is 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.

#### Public Notification for Monitoring Violation

The Water Authority had a monitoring violation in 2018.

The monitoring violation occurred since a radiological sample that was collected on 8/16/2018 from Well No. 15C had a Combined Radium 226/228 result of 5.4 pCi/l which is over the Maximum Contaminant Level (MCL) of 5 pCi/l. This requires that samples be collected on a quarterly basis for 4 consecutive quarters including the quarter when the original sample was collected for Combined Radium 226/228 in order to determine whether an MCL violation has occurred. The Water Authority failed to collect a sample during the last quarter of 2018.

Alternative water supplies do not need to be used and the customers do not need to take any action.

The Water Authority updated its file system so if there is a result over the MCL in the future it will be flagged so that the required sampling will be performed. The Water Authority's laboratory contractor will highlight any results, which are over the MCL, on the laboratory reports that are submitted to the Water Authority. The Water Authority will collect the required samples during each quarter of 2019.

The Water Authority expects to return to compliance during third quarter of 2019, when the fourth sample is collected from the well.

Please contact the Water Authority's Chief Engineer, Robert Swartz, at 516-327-4100 or the Nassau County Department of Health at 516-227-9692 if you have any questions or concerns.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the fourth quarter of 2018 we did not test for Combined Radium 226/228 and therefore cannot be sure of the quality of our drinking water during that time.

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.

#### **Water Conservation Methods**

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water. Saving water saves energy and some of the costs associated with both of these necessities of life. Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water storage tanks. It also lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less water whenever you can. The following suggestions will help you make your home "water efficient" without sacrificing comfort or changing lifestyles:

- Turn off your automatic lawn sprinkler if rain is expected or install a rain sensor.
- Load your automatic dishwasher to its maximum capacity before running it. Dishwashers use approximately 15 gallons for every cycle regardless of how many dishes are loaded.
- Turn off the tap when brushing your teeth or while shaving.
- 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.
- Check your toilet for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl which will indicate a leak. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. By fixing it, you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn
  off all faucets and water using appliances, and be sure no
  one in your family uses water during the testing period.
  Note the water meter reading and check the meter after
  15 minutes. If the dial indicator on the water meter
  moved, you have a leak.

#### **Outside Water Use Restrictions**

Lawn sprinkling remains the leading nonessential use of water. Your lawn needs about 1-1/2 inches of water a week, preferably in one watering. You shouldn't follow a fixed schedule, but water only when the grass or plants show signs of needing it. During a cool or cloudy spell, you don't need to water as often.

Please remember that Nassau County watering regulations for lawns and gardens are in effect year-round. Outside water usage is prohibited between the hours of 10:00 a.m. and 4:00 p.m. year-round. Customers with odd-numbered addresses may only water on odd days of the month and customers with even-numbered (or no number) addresses may only water on even days of the month.

#### 2018 Statistics At-a-Glance

Wells Closed/Restricted	3 <sup>1</sup>
Violations of Standards	None
Number of Service Connections (Customers)	28,026
Population Served	120,000
Total Water Produced (billion gallons) <sup>2</sup>	4.00
Daily Average (million gallons)	10.97
Highest Single Day (million gallons)	18.87
Total Wells in System	24
Active Wells in System	24
Storage Facilities	4 ground, 3 elevated
Storage Capacity (million gallons)	11.8
Miles of Main	234
Fire Hydrants	2,432
Water Obtained or Disbursed through Interconnections With Other Water Suppliers	None
Average Annual Residential Water Rates (based on 95,600 gallons) $^{\rm 3}$	\$464

- One well is out of service for high nitrate levels and two wells are out of service for high iron levels.
- <sup>2</sup> Approximately 81.3 percent of the water produced in 2018 was billed directly to customers and 11.8 percent was used for main flushing, hydrant testing and maintenance, and station and tank maintenance. The balance, or unaccounted for water of approximately 6.9 percent, was used for contractor activity, fighting fires, filling street sweepers and sewer cleaning trucks and also includes losses due to leaks, water main breaks and hit hydrants.
- On June 1, 2018 the Water Authority implemented a 2.5% rate increase. The majority of Water Authority customers utilize a 5/8" meter and are charged quarterly \$46.63 for the first 9,000 gallons used. All customers pay \$4.266 per thousand gallons for the next 135,000 gallons, and then pay \$4.371 per thousand gallons for usage over 144,000 gallons.

Customers in violation of the Nassau County watering regulations are subject to the following terms adopted by the Water Authority's Board of Directors on May 27, 2003:

1st Violation: Warning

2nd Violation: \$50 Service Charge

3rd Violation: \$75 Service Charge

4th Violation: \$150 Service Charge

5th Violation: \$300 Service Charge

Each Additional: \$300 Service Charge

These service charges will be billed to the customer's water service account.

#### **System Improvements**

In addition to the extensive monitoring and testing performed on our water supply, the Water Authority maintains, services and upgrades its water supply facilities and distribution system regularly. In 2018 capital projects completed or underway included the following:

- Continued construction of new VOC removal facilities for Well Nos. 15A and 15B; construction complete for Well Nos. 15C and 15E in Elmont;
- Continued construction of a new Iron Removal Plant for Well No. 25A in North Valley Stream;
- Completed a pilot program for a new treatment facility at Station No. 57 in New Hyde Park for the removal of 1,4-Dioxane from the water and other modifications;
- Completed the installation of approximately 2,600 feet of a new 12-inch transmission water main on Celler Avenue from Station No. 40 on Soma Street to Hillside Avenue in New Hyde Park, including the replacement of 3 fire hydrants;
- Service and hydrant replacements;
- Computer upgrades and replacements;
- Meter replacements; and
- Vehicle and large equipment replacements.

#### Planned improvements for 2019 include:

- Completion of construction of the new VOC removal facilities for Well Nos. 15A and 15B in Elmont;
- Completion of construction of a new Iron Removal Plant for Well No. 25A in North Valley Stream;
- Completion of construction of a new storage area at Well Station No. 44 in Elmont;
- Start construction of a new treatment facility at Station No. 57 in New Hyde Park for the removal of 1,4-Dioxane from the water. This project includes raising the two (2) wells that are below grade at the Station to a height of 18-inches above the existing grade and modifications to the existing VOC removal facility at the site.
- Design of wellhead treatment for 1,4-Dioxane and PFAs at Station Nos. 20 and 40 in New Hyde Park and Station No. 35 in Floral Park.
- Well pump bowl replacements;
- Service and hydrant replacements;
- Computer upgrades and replacements;
- Meter replacements; and
- Vehicle and large equipment replacements.

#### **Unregulated Contaminant Monitoring Rule 4**

In 2018, the Water Authority was required to collect and analyze drinking water samples for unregulated contaminants. Unregulated contaminants that were detected are reported in the Table of Detected Contaminants found on pages 4-5 of this report. You may obtain information on the monitoring results by contacting the Water Authority's Chief Engineer, Robert Swartz, at (516) 327-4100.

# Annual Chairman's Report Summary of Untreated Well Water Quality Exceeding Standard or Two-Thirds of Standard

(For Calendar Year Ended December 31, 2018) \*

		Designation of Wells Exceeding Standard or Two-Thirds of Standard	Concentr (ug/l Unless n		
Substance	2018 Standard		BEFORE Treatment	AFTER Treatment	Sample Date (2018)
Chloride	250 mg/l	None	N/A	N/A	N/A
Nitrate	10 mg/l	None	N/A	N/A	N/A
1,1-Dichloroethane	5 ug/l	57 57A	11 27	ND ND	11/8 2/1
1,1-Dichloroethene	5 ug/l	57 57A	6.8 8.2	ND ND	11/8 1/30
cis-1,2-Dichloroethene	5 ug/l	57 57A	17 33	ND ND	11/8 1/30
Chlorodifluoromethane	5 ug/l	35A	9.7	ND	2/1
Tetrachloroethene	5 ug/l	15C 15E 20 35A 44 44A 44C 57	23 36 8.2 3.5 3.4 19 120 68 45	ND N	11/8 12/6 5/24 10/11 2/13 12/4 12/4 12/6 1/30
Trichloroethene  Vinyl Chloride	5 ug/l 2 ug/l	35A 44A 44C 57 57A	6.2 7.4 15 55 53	ND ND ND ND ND	10/11 1/2 7/3 12/6 1/30

Well Nos. 15C, 15E, 44, 44A & 44C are located in Elmont Well Nos. 20, 57 & 57A are located in New Hyde Park Well No. 35A is located in Floral Park N/A—Not Applicable

ND—Non Detection (Laboratory analysis indicates that the constituent is not present.)
\*Note: No water is pumped into the distribution system until it has been treated.

#### Fiscal Year June 1, 2017 to May 31, 2018

Total Revenues Earned	\$17,994,744
Operating and Maintenance Expenses	\$9,330,515
Interest Expense on Long-term Debt	\$4,435,696
Interest Income	\$154,611
Miscellaneous Income	\$291,647

Additional expenses during the year included depreciation and amortization of original revenue bond and subsequent refinancing closing costs associated with the original purchase of the water system.



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# **About this Report**

To comply with New York State ("State") regulations, the Water Authority annually issues a report describing the quality of your drinking water. During 2018, our system was in compliance with applicable State drinking water operating, and reporting requirements.

During the 2018 calendar year, the Water Authority conducted more than 30,300 tests for over 150 drinking water contaminants.

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 EPA and State standards. As in years past, our system was in compliance with all applicable State drinking water operating and reporting requirements as well as notification procedures.

If you have any questions about this report or your drinking water, please contact Robert Swartz, our Chief Engineer, at (516) 327-4100.

# **Share This Report**

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers of the Water Authority of Western Nassau County.

Additional copies of this report are available on our website at www.wawnc.org.

Or contact our customer service department at:

(516) 327-4100

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