



# 2020 WATER QUALITY REPORT



**Service Area 1: Lynbrook  
Operations District**  
Public Water Supply ID# NY2902835

This report complies with Part 5-1.72, New York State Sanitary Code (10 NYCRR) and federal Consumer Confidence Report regulations (40 CFR Part 141, Subpart O).

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

本报告与您的饮用水有关。  
如果您不了解其内容，应请别人为您翻译解说。

이 보고서에는 귀하께서 사용하고 계시는 식수에 관한 정보가 들어있습니다. 만약에 이해를 못하시면 누군가에게 번역을 의뢰하십시오.

## A Message from the New York American Water President



To Our Valued Customer:

Thank you for the opportunity to serve you. I am pleased to share our **Annual Water Quality Report** with you – this is our report card on the quality of the drinking water delivered to our customers. The report shows that we continue to supply you with water that meets or surpasses all county, state, and federal water quality standards. We encourage our customers to review this report as it provides important details about the source and quality of your drinking water between January and December 2020.

New York American Water (NYAW) invests in our infrastructure to deliver quality drinking water to our customers. This includes the facilities and technology needed to draw water from the source and treat it, along with miles and miles of pipeline hidden below the ground to bring water to your tap. In addition, our plant operators, water quality experts, engineers and maintenance crews work around the clock to provide you with quality water.

Delivering safe, reliable water service requires significant investment to maintain and upgrade aging facilities. In

2020, we invested approximately \$62 million in system improvements. NYAW is also making important investments in water treatment technology to comply with New York State Department of Health’s (NYSDOH) new drinking water standards for emerging compounds, specifically 1,4-Dioxane, PFOA, and PFOS.

The COVID-19 public health emergency highlighted how essential water is for public health. We remain steadfast in our commitment to delivering safe and reliable water service while maintaining a safe environment for our employees and customers. NYAW extends our sincerest gratitude to our field employees as well as all frontline workers and essential employees who are on the job and keeping life flowing. Thank you!

Sincerely,

Lynda DiMenna  
President, New York American Water

## Public Participation – How You Can Get Involved

Customers can participate in decisions that may affect the quality of water by:

- Reading the information provided in bill inserts and special mailings
- Contacting the company directly with questions or to discuss issues
- Attending open houses conducted by the company
- Responding to survey requests
- Attending presentations by the company made to local community and civic associations
- Contacting agencies such as the Nassau County Health Department (NCDOH) at 516-227-9692



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## Be Water Smart – Think Conservation

The New York State Department of Environmental Conservation requested that all Long Island water suppliers reduce their peak pumpage by 15 percent to protect the long-term sustainability of the Long Island aquifer. Our customers must conserve water to help us achieve this goal. When our customers conserve, not only do they reduce their water bill, but New York American Water is able to defer infrastructure investment projects that are needed to meet peak water demand, which can reach as high as 50 million gallons of water a day in the summer.

The following suggestions will help you make your home “water efficient” without sacrificing comfort or changing lifestyles:

- Install smart irrigation technology on your irrigation system to irrigate as efficiently as possible.
- Install a moisture sensor on your irrigation system to prevent wasteful watering during or just after a rain.
- Use native, drought-resistant shrubs, trees, plants, and grasses in your landscape.
- Run dishwashers and washing machines only with full loads.
- Turn off the tap when brushing your teeth or shaving.
- Check every faucet for leaks. Even a slow drip can waste 15 to 20 gallons a day, or about 6,000 gallons a year.
- If you suspect that you have a water leak, order our free Leak Detection Kit. The kit contains information and dye tablets to help you determine if you have a wasteful water loss. Call our customer call center or 516-632-2236 to order.
- Replace older devices with water-saving showerheads, faucets, or low flush toilets. A normal showerhead uses 5 to 7 gallons a minute. Switching to a low-flow model that uses 1.5 gallons a minute can save a family thousands of gallons of water a year.

## What is a Water Quality Report?

For more than 30 years, New York American Water – Lynbrook Operations District (formerly Long Island American Water) has published an Annual Water Quality Report to keep our customers up to date on the quality of our drinking water. Once again, we are pleased to report that your tap water not only meets, but in all instances except iron, exceeds all federal, state, and local drinking water standards, and our system has never violated a primary maximum contaminant level.

To assure that water is safe to drink, the U.S. Environmental Protection Agency (USEPA), and the Health Departments of New York State and Nassau County, set regulations for water quality and indicate the levels of various substances that are acceptable in public drinking water. This report explains how our water measures up to those standards. As you can see by the results, our water quality is excellent.

The New York State Department of Health (NYSDOH) and the U.S. Food & Drug Administration regulate and set limits for substances in bottled water, which must also provide protection for public health.

During 2020, our system was in compliance with applicable NYS drinking water operating, monitoring and reporting requirements. If you have questions about this report, please contact our Water Quality Manager at 516-632-2239.

## 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 NYAW. Additional copies of this report are available by contacting us at 516-632-2239.**

## How to Contact Us

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers protect our water sources, which are the heart of our community. Please call our Customer Call Center toll-free if you have questions:

### NYAW:

**Customer Call Center:** 1-877-426-6999 (M-F; 7am-7pm)

**Emergencies:** 1-877-426-6909 (24 hours)

**TDD (Hearing/Speech impaired):** 1-800-300-6202

Online: [www.newyorkamwater.com](http://www.newyorkamwater.com)

### Administrative Office:

New York American Water  
60 Brooklyn Avenue  
Merrick, NY 11566  
516-632-2232

### Billing Payment Address:

New York American Water  
PO BOX 371332  
Pittsburgh, PA 15250-7332

## Water Information Sources :

### NYSDOH

1-518-473-8600 • [www.health.state.ny.us](http://www.health.state.ny.us)

### NCDOH

516-227-9692 • [www.co.nassau.ny.us/health](http://www.co.nassau.ny.us/health)

### New York State Department of Public Service

1-800-342-3377 • [www.dps.state.ny.us](http://www.dps.state.ny.us)

### USEPA

[www.epa.gov/safewater](http://www.epa.gov/safewater)

### EPA Safe Drinking Water Hotline

1-800-426-4791

### American Water Works Association

[www.awwa.org](http://www.awwa.org)

### Water Quality Association

[www.wqa.org](http://www.wqa.org)



## About NYAW

NYAW, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water company in New York, providing high-quality and reliable water and/or wastewater services to approximately 350,000 people.

## About American Water

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater, and other related services to more than 15 million people in 46 states. American Water provides safe, clean, affordable, and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit [amwater.com](http://amwater.com) and follow American Water on [Twitter](https://twitter.com/awny), [Facebook](https://www.facebook.com/awny) and [LinkedIn](https://www.linkedin.com/company/awny).

## Communities Served

Atlantic Beach	Lawrence
Baldwin	Lynbrook
Baldwin Harbor	Malverne
Barnum Island	Malverne Park-Oaks
Bay Park	Meadowmere
Cedarhurst	North Lawrence
East Atlantic Beach	North Lynbrook
East Rockaway	North Woodmere
Harbor Isle	Oceanside
Hewlett	Roosevelt
Hewlett Bay Park	South Hempstead
Hewlett Harbor	Valley Stream
Hewlett Neck	West Hempstead*
Inwood	Woodmere
Island Park	Woodsburgh

\*community partially served

## Average Residential Usage & Cost

In 2020, the average residential household used approximately 95,795 gallons of water at a cost of \$819, or \$2.24 a day. With an average of 3.0 persons per household, the cost of water was about 75¢ a day per person.

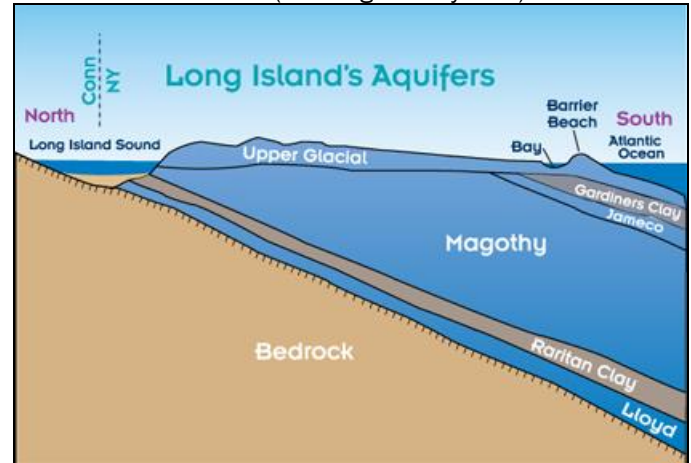
## Source, Quality & Quantity

Groundwater is the source of your drinking water supply. It is drawn from approximately 36 wells total, including small capacity ones in a well field, located in the aquifer system beneath the land surface.

## The Aquifers

The aquifers are water-bearing geologic deposits of sand and clay that absorb and store about 45 percent of the rain and snow that fall on Long Island. New York American Water – Lynbrook Operations has wells in the Upper Glacial, Magothy, Jameco and Lloyd aquifers.

Not all wells are operating at the same time, which means that the water you receive is a blend of treated water from different well locations (an integrated system).



Not to scale

**If you have a private well which is unregulated and untested, you should not use the water for drinking or cooking.**

(Source: NCDOH)

## Source Water Assessment

The NYSDOH, with assistance from the local health department and a 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. 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 36 wells (large wells – not including small wells included in a well field). The source water assessment has rated most of the wells as having a very high susceptibility to industrial solvents and 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 residential and commercial land use and related practices in the assessment area, including fertilizing lawns.





A copy of the assessment, including a map of the assessment area, can be obtained by contacting NYAW's Manager of Water Quality at 516-632-2239.

## How is Your Water Treated?

Our water supply is obtained from wells located throughout our service area. The wells range in depth from about 30 feet to 1,100 feet, averaging 500 feet. In our area of southwestern Nassau County, the soil has a naturally high iron and mineral content. The water dissolves these naturally occurring minerals, and while they are not health hazards, they can cause discolored water issues. Bacteriological pollutants are not usually present in wells at the average depth of 500 feet. However, water treatment is required to protect the water in the distribution system and to minimize discolored water conditions.

### Treatment consists of:

1. Chlorination (with 12.5% Sodium Hypochlorite) for bacteriological disinfection at all treatment plants.
2. Lime (Calcium Hydroxide) to raise pH and minimize corrosivity to water mains and household plumbing (at 6 out of 20 locations).
3. Caustic Soda (25% Sodium Hydroxide) to raise pH and minimize corrosivity to water mains and household plumbing (at 14 out of 20 locations).
4. Filtration to remove naturally occurring Iron at 13 out of 20 well treatment locations.
5. Sodium Silicate to stabilize (sequester) iron not removed by filtration, and for corrosion control purposes, at all treatment plant locations.
6. Air strippers to remove volatile organics at one location.
7. We take steps to reduce the potential for lead to leach from your pipes into the water. This is accomplished by adding a corrosion inhibitor (Sodium Silicate) to the water leaving our treatment facilities. There are steps that you can take to reduce your household's exposure to lead in drinking water. For more information, please review our Lead and Drinking Water Fact Sheet at: [www.nyamwater.com/water-quality/lead-and-drinking-water](http://www.nyamwater.com/water-quality/lead-and-drinking-water)

## System Improvements

In 2020, we continued to make significant upgrades to our system and infrastructure. These improvements include.

- Replaced approximately 8 miles of water main throughout the service territory.
- Replaced 49 fire hydrants.
- Replaced 616 service lines.
- Replaced approximately 1,460 water meters.
- Completed construction on the roof replacement of the 1 Million-Gallon storage tank at Plant 7 in Valley Stream.
- Drilled two 2-Million-Gallon-Per-Day replacement wells at Plants 15 and 24 in Lynbrook.
- Completed construction on a new 6 Million-Gallon-Per-Day Iron Removal System at Plant 1 in Roosevelt.
- Replaced and improved chemical and electrical systems at Plant 22 in Baldwin.

- Constructed a new 20-inch diameter water transmission main and directional drill crossing under Sunrise Hwy and the Long Island Railroad in Roosevelt and Baldwin.
- Replaced a 20-inch diameter water transmission main under the Reynolds Channel from Lawrence to Atlantic beach by directional drilling.

### Capital Improvements planned for 2021 include:

- Replace approximately 6.5 miles of water main throughout the service territory (over 34,000 feet).
- Replace approximately 40 fire hydrants.
- Replace approximately 600 service lines.
- Replace approximately 7,700 water meters.
- Complete the conversion of all diesel driven pump motors to new electric motors at Plant 5 in Hewlett.
- Complete construction of reliability and water quality upgrades to the Plant 5 treatment facility, including new emergency generator, new roof system over the iron filtration gallery, and new chemical treatment systems.
- Construct filter backwash water handling improvements at Plant 6 in Atlantic Beach.
- Install a new building around the Iron Removal Filters at Plant 20 in Valley Stream.

## Do I Need to Take Special Precautions?

To ensure that tap water is safe to drink, the USEPA prescribes regulations limiting the number of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Although our drinking water meets all state and federal regulations, 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. If you have questions, contact the NCDOH at 516-227-9692. EPA/CDC 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 1-800-426-4791.



## Substances Expected to be in Drinking Water

In general terms, the sources of drinking water (both tap 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 can pick up substances resulting from the presence of animals or from human activities.

### Substances that may be present in source water include:

- **Microbiological Contaminants:** Such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.
- **Inorganic Contaminants (IOC's):** Such as salts and metals which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and Herbicides (SOC's):** Which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- **Organic Chemical Contaminants (VOC's):** Including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and septic systems.
- **Radioactive Contaminants:** Which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

## Cryptosporidiosis & Giardiasis

Although there have been no cases of Cryptosporidiosis in Nassau County attributable to the water supply, you should be aware of the risks to people with severely weakened immune systems. Cryptosporidiosis and Giardiasis are intestinal illnesses caused by microscopic parasites that can be transmitted several ways including through drinking water. Cryptosporidiosis can be very serious for people with weak immune systems, such as transplant patients; individuals receiving chemotherapy or dialysis, and people with Crohn's disease or HIV infection. Individuals who think they may have been exposed to Cryptosporidiosis or Giardiasis should contact their health care providers immediately.

Immuno-compromised patients who may have been advised by their health care provider that they may be at risk, especially when traveling, should observe the following:

- One minute of boiling water at a rolling boil will kill *Cryptosporidium parvum* and *Giardia lamblia*.
- Drinking bottled water does not guarantee that the water is free from Cryptosporidiosis or Giardiasis.

Contact your health care provider about your options. If you have questions, contact the NCDOH at 516-227-9692.

## Lead & Copper Rule Statements

The Lead and Copper Rule requires sampling for lead and copper at the tap. In 1992, the first-year testing was required; tap water was sampled in compliance with EPA regulations. Test results were excellent: at least 90 percent of the lead tests were well below 5 parts per billion, and for copper, below 0.2 parts per million, indicating that the company's corrosion control treatment processes continue to be effective. The same tests were done roughly every three years from 1997 through 2020 with similar results. The next round of homeowner monitoring for the Lead and Copper Rule will be completed in the summer of 2023. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. New York American Water 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 drinking 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## How do I read the Water Quality Table?

The Water Quality Table – “**Table of Detected Contaminants**” is the most important section in this report, containing details on New York American Water's comprehensive testing program for drinking water at the tap. It compares the results from tests we performed in 2020 (and earlier) with the health standards established by federal, state and local health authorities. Of about 200 substances or parameters tested, detectable levels were found for about 40; and except for iron, which is not considered a health hazard, these levels are trace amounts, well below the levels set to protect public health.

To review the quality of your drinking water, compare the result in the “**Maximum Amount Detected**” column with the **Standard** in the “**MCL**” column. That **Standard** is the highest level that is considered safe for drinking water. To be in compliance, the **High** result in the “**Range: Low-High**” column should be lower than the **MCL Standard**. For example, under **Metals & Inorganic Substances**, the “**MCL**” standard for **Chlorides** is **250 ppm** and the “**Maximum Amount Detected**” result is **34.6 ppm**, well below the maximum allowed contaminant level (or “**MCL**”).

Also review the “**Compliance Achieved**” and “**Violation**” columns to determine if New York American Water violated any standards. As you can see, our system had no



violations. Further evidence of the quality of our water can be seen in the “**Listing of Non-Detected (ND) Contaminants**” – An extensive list of substances that we tested for and did not find in our distribution system and/or water sources.

The **Definition of Terms** below provides further explanation of the data.

### Definitions of Terms Used in This Report

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **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.
- **MGD =** Million Gallons per Day.
- **90th Percentile Value:** The values reported in the “Lead and Copper Rule” section 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 percent of the lead and copper values detected in your water system.
- **N/A:** Not applicable
- **Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity more than 5.0 NTU is just noticeable to the average person.
- **None Detected (ND):** Laboratory analysis indicates that the constituent is not present at the method detection level.
- **Parts per Million (ppm):** Corresponds to one part of liquid in one million parts of liquid [Equivalent to “milligrams per liter” (mg/L)].
- **Parts per Billion (ppb):** Corresponds to one part of liquid in one billion parts of liquid [Equivalent to “micrograms per liter” (µg/L)].
- **Parts per Trillion (ppt):** Corresponds to one part of liquid in one trillion parts of liquid [Equivalent to nanograms per liter (ng/L) or roughly one second in approx. 31,506 years].
- **Picocuries per liter (pCi/L):** A measure of the radioactivity in water.
- **Total Dissolved Solids (TDS):** An overall indicator of the amount of minerals in the water.

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

### Water Quality Facts

To provide high quality water, individual water samples are taken each year for chemical, physical, and microbiological tests. Testing can pinpoint a potential problem so that preventive action may be taken.

Tests are done on water taken from the well (“raw water”), water within our treatment facilities, water exiting our treatment plants at the point-of-entry to the distribution system, and from sites located throughout our distribution system after treatment. These tests are conducted in the company’s state certified laboratory, by the NCDOH Laboratory, and by independent, certified laboratories approved by the state, who report results simultaneously to the company and to the Health Department.

NYS allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year-to-year. Some of the data, though representative of the water quality, are more than one year old.

For a copy of the Water Supplement containing detailed data on testing at the source water wells before treatment, call us at 516-632-2239 and request a copy.

### 2020 STATISTICS AT-A-GLANCE

Wells Closed/Restricted	Three
Violations of Standards	None
Typical Well Depth	500 Feet
Aquifers	Upper Glacial*, Jameco, Magothy, Lloyd
Pumping Stations	23
Service Area	43 Square Miles
Total Water Withdrawn	9,333,787,000 Gal.
Total Water Sales	8,053,608,000 Gal.
Total Water Lost from System**	1,280,179,000 Gal.
Population Served (approx.)	220,000
Customers Served (accounts)	74,240
Miles of Mains	723

\* The Upper Glacial aquifer is no longer utilized for water source  
 \*\* Total water lost from the system includes “Accounted For” and “Unaccounted For” water. Non-Revenue Water is approx. 13.7% of total water withdrawn; of which, approximately 7.4% is accounted for, and 6.3% is unaccounted for.



## Water Quality Table – Table of Detected Contaminants 2020 (SA1: Lynbrook Operations)

### REGULATED SUBSTANCES

Contaminant (units)	Date Sampled	MCL	MCLG	Maximum Amount Detected	Range: Low-High	Violation (Yes/No)	Typical Source
<b>Microbiological</b>							
Total Coliform (% positive samples in any given month) <sup>1</sup>	2020 (One positive sample on 08/18/20)	TT => 5% samples positive in a month	N/A	0.65 % (8/2020)	ND (0%) - 0.65%	No	Naturally present in the environment
<b>Radiological</b> <sup>2</sup>							
Gross Alpha Activity (pCi/L)	08/2018	15	0	5.44	ND - 5.44	No	Erosion of natural deposits
Gross Beta Activity (pCi/L)	07/2018	50	0	5.94	0.221 - 5.94	No	Decay of natural deposits
Combined Radium-226 and Radium-228 (pCi/L)	08/2018	5	0	5.0	0.378 - 5.0	No	Erosion of natural deposits and man-made emissions
Uranium (ppb)	09/2019	30	0	0.270	ND - 0.270	No	Erosion of natural deposits
<b>Disinfection By-Products</b>							
TTHM's (Total Trihalomethanes) (ppb) <sup>3</sup>	Quarterly 2020	80	0	9.4	0.7 - 9.4	No	By-product of drinking water disinfection
HAA5's (Total Haloacetic acids) (ppb) <sup>4</sup>		60	0	1.2	<1.0 - 1.2	No	
<b>Disinfectants</b>							
Chlorine (ppm) <sup>5</sup>	08/2020	N/A	N/A	1.85	<0.05-1.85	No	Water additive used to control microbes

### Lead and Copper Rule (Tap water samples were collected from 52 homes in the service area)

Contaminant (units)	Date Sampled	Action Level	MCLG	Amount Detected (90th %tile)	Range: Low-High	Homes Above Action Level	Violation (Yes/No)	Typical Source
Copper (ppm) <sup>6</sup>	09/2020	1.3	1.3	0.210	ND - 0.460	0	No	Corrosion of household plumbing systems
Lead (ppb) <sup>7</sup>	09/2020	15	0	3.2	ND - 6.2	0	No	

### Metals & Inorganic Substances

Contaminant (units)	Date Sampled	MCL	MCLG	Maximum Amount Detected	Range: Low-High	Violation (Yes/No)	Typical Source
Chlorides (ppm)	11/2020	250	N/A	34.6	9.9 - 34.6	No	Naturally occurring or indicative of road salt contamination
Iron (ppb) <sup>8</sup>	06/2020	300	N/A	640	ND - 640	No	Naturally occurring
Manganese (ppb) <sup>9</sup>	06/2020	300	N/A	76	ND - 76	No	Naturally occurring
Nitrates as N (ppm)	11/2020	10	10	0.03	ND - 0.03	No	Erosion of natural deposits; Runoff from fertilizers and septic tanks
Sodium (ppm) <sup>10</sup>	11/2020	None	N/A	51.9	27.9 - 51.9	No	Naturally occurring; Road salt; Water softeners
Sulfate (ppm)	11/2020	250	N/A	48.4	10.0 - 48.4	No	Naturally occurring
Arsenic (ppb) *	07/2020	10	N/A	1.9	ND - 1.9	No	Erosion of natural deposits
Beryllium (ppb) **	07/2020	4	4	0.37	ND - 0.37	No	Discharges from electrical, aerospace, and defense industries

\* Arsenic was detected in 3 out of 28 raw water wells tested in 2020 but was Not Detected in distribution system sampling.

\*\* Beryllium was detected in 1 out of 28 raw water wells tested in 2020 (for summer seasonal use only) but was Not Detected in distribution system sampling.

### Organic Substances

Contaminant (units)	Date Sampled	MCL	MCLG	Maximum Amount Detected	Range: Low-High	Violation (Yes/No)	Typical Source
Chlorodifluoromethane (ppb) *	01/2020	5	N/A	1.4	ND - 1.4	No	Industrial discharges
Methyl Tertiary Butyl Ether (MTBE)-(ppb) **	11/2020	10	N/A	0.5	ND - 0.5	No	Releases from gasoline storage tanks
Dacthal (ppb) <sup>11</sup>	12/2020	50	N/A	2.0	ND - 2.0	No	Agricultural herbicide
<b>Specific Organic Compounds</b>							



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1,4 dioxane (ppb)	07/2020	1.0	N/A	0.230	ND - 0.230	No	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites
Perfluorooctanesulfonic acid (PFOS) (ppt)	12/2020	10	N/A	2.3	ND - 2.3	No	Firefighting foams, Teflon surfaces, water-resistant coatings
Perfluorooctanoic acid (PFOA) (ppt)	07/2020	10	N/A	2.7	ND - 2.7	No	

\* Chlorodifluoromethane (Freon-22) was detected in 2 out of 28 raw water wells tested but was Not Detected in distribution system samples.

\*\* Methyl Tertiary Butyl Ether (MTBE) was detected in 1 out of 28 raw water wells tested.

## Physical Parameters & Unregulated Substances

Contaminant (units)	Date Sampled	Maximum Amount Detected	Range: Low-High	Violation (Yes/No)	Typical Source
Alkalinity (ppm)	11/2020	77.1	53.2 - 77.1	No	N/A
Aluminum (ppb)	07/2020	110	ND - 110	No	Naturally occurring
Calcium (ppm)	06/2020	11.0	1.5 - 11.0	No	Naturally occurring; Water treatment additive
Calcium Hardness (ppm)	06/2020	38.8	3.8 - 38.8	No	N/A
Color Index (units)	06/2020	20	ND - 20	No	Presence of metals such as copper, iron and manganese
Corrosivity (Langelier Index) <sup>12</sup>	11/2020	(-1.76)	(-0.56) - (-1.76)	No	N/A
Dacthal (ppb) <sup>11</sup>	12/2020	2.0	ND - 2.0	No	Agricultural herbicide
Hardness, Total (ppm)	11/2020	51.8	7.2 - 51.8	No	N/A
Magnesium (ppm)	11/2020	6.5	ND - 6.5	No	Naturally occurring
pH (units) <sup>13</sup>	2020	8.5	7.2 - 8.5	No	N/A
Odor (units)	11/2020	1	ND - 1	No	N/A
Silica (ppm as SiO <sub>2</sub> )	11/2020	26	ND - 26	No	Naturally occurring; Water additive used for corrosion control and to help control discolorations due to iron.
Temperature (°F)	07/2020	72	54 - 72	No	N/A
Turbidity (NTU)	06/2020	1.0	ND - 1.0	No	Measurement of the clarity of water
Total Dissolved Solids (TDS) (ppm)	06/2020	167	54 - 167	No	N/A

### Footnotes:

<sup>1</sup> 1,834 total distribution system bacteriological samples taken in 2020; with one positive Total Coliform result = 0.05% positive for the year.

<sup>2</sup> Radiological results are from raw water wells, not on distribution locations, as required by the NCDOH.

<sup>3</sup> TTHM's mean the sum of: Bromoform, Bromodichloromethane, Dibromochloromethane, and Chloroform. The highest 'Locational Running Annual Average' was 7.4 ppb in 2020.

<sup>4</sup> HAA5's includes the sum of: Monochloroacetic acid, Dichloroacetic acid, Trichloroacetic acid, Bromoacetic acid, and Dibromoacetic acid. The highest 'Locational Running Annual Average' was <1.0 in 2020.

<sup>5</sup> The running annual average of all 1,834 Chlorine Residual tests in the distribution system was **0.88 ppm** for 2020. Only 1 out of 1834 chlorine residual tests taken from the distribution system were ND (<0.05 ppm) = 0.05% for 2020.

<sup>6</sup> The level presented represents the 90th percentile of 52 sites tested. The "action level" for copper was not exceeded at any of 52 sites tested.

<sup>7</sup> The level presented represents the 90th percentile of 52 sites tested. The "action level" for lead was not exceeded at any of 52 sites tested.

<sup>8</sup> Higher levels of iron (up to 1,500 ppb) may be allowed by the state when justified by the water supplier by using metal sequestering treatments, as is the case with NYAW - Lynbrook Operations District, which treats with Sodium Silicate.

<sup>9</sup> Total of iron and manganese should not exceed 500 ppb, unless allowed by the state for systems utilizing metal sequestering treatments, as is the case with NYAW - Lynbrook Operations, which treats with Sodium Silicate.

<sup>10</sup> Water containing more than 20 mg/L of sodium should not be used for drinking by persons 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.

<sup>11</sup> Dacthal also known as Dimethyl Tetrachloroterephthalate (DCPA) was analyzed on raw water wells, and not sampled on distribution locations, as per NCDOH requirements.

<sup>12</sup> The NCDOH recommends that the Langelier Saturation Index (for corrosivity) be as close to zero as possible.

<sup>13</sup> NCDOH guidelines recommend a pH range of 7.0 - 8.5. The running annual average of all pH readings in the distribution system was **7.68 units** in 2020.

## Unregulated Contaminant Monitoring Rule (UCMR4):

The following parameters were tested for as per a required USEPA monitoring program (2018 - 2020) to try to quantify the presence and amount of emerging or unregulated compounds to see if any should be regulated by the EPA in the future. Unregulated contaminants are those for which USEPA has not established drinking water standards for. The purpose of unregulated contaminant monitoring is to assist USEPA in determining the occurrence of these constituents in drinking water and whether future regulation is warranted. (No Federal MCL's exist for these parameters to-date, although some might be already regulated by the NYSDOH.)

The following contaminants that we tested for on the treated water exiting our treatment plants ("Entry Point" locations) were detected as follows:



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Contaminant (units)	Date Sampled	Maximum Amount Detected	Range: Low-High	Typical Source
Manganese (ppb)	2018	100	0.55 - 100	Naturally occurring

The following contaminants that we tested for on the raw water wells were detected as follows:

Contaminant (units)	Date Sampled	Maximum Amount Detected	Range: Low-High	Typical Source
Bromide (ppb)	2018	170	30 - 170	Naturally occurring
Total Organic Carbon (ppb)	2018	403.2	ND - 403.2	Naturally occurring

The following contaminants that we tested for on distribution system locations were detected as follows:

Contaminant (units)	Date Sampled	Maximum Amount Detected	Range: Low-High	Typical Source
Total Haloacetic Acids – UCMR4 (ppb)	2018	3.10	0.59 – 1.30	By-product of drinking water disinfection
Total Haloacetic Acids – Bromide-related (ppb)	2018	1.60	0.34 – 1.60	By-product of drinking water disinfection

Total Haloacetic Acids for UCMR4 include the sum of the following contaminant combinations: Monochloroacetic acid, Monobromoacetic acid, Dichloroacetic acid, Trichloroacetic acid, Bromochloroacetic acid, Dibromoacetic acid, Bromodichloroacetic acid, Chlorodibromoacetic acid, Tribromoacetic acid.

### Unregulated Contaminant Monitoring Rule (UCMR4) – Listing of Non-Detected (ND) Contaminants (2018):

The following contaminants that we tested for under UCMR4 Monitoring Program were “Non-detected” (ND):

#### Metals:

Germanium

#### Alcohols:

1-butanol  
2-methoxyethanol  
2-propen-1-ol

#### Semi-Volatile Chemicals:

Butylated hydroxyanisole (BHA)  
o-toluidine  
Quinolone

#### Pesticides and byproducts:

Alpha-Hexachlorocyclohexane  
Chlorpyrifos  
Dimethipin  
Ethoprop  
Oxyfluorfen  
Profenofos  
Tebuconazole  
Total Permethrin (cis- & trans-)  
Tribufos

### Unregulated Contaminant Monitoring Rule (UCMR3):

The following parameters were tested for as per a required USEPA monitoring program (2013 - 2015) to try to quantify the presence and amount of emerging or unregulated compounds to see if any should be regulated by the USEPA in the future (No MCL's exist for these parameters to-date).

The following contaminants that we tested for on the treated water exiting our treatment plants (“Entry Point” locations) were detected as follows:

Contaminant (units)	Date Sampled	Maximum Amount Detected	Range: Low-High	Typical Source
1,4-Dioxane (ppb) **	2017-2020	1.27*	ND - 1.27	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Chlorodifluoromethane (ppb)	2015	0.44	ND - 0.44	Refrigerant

\* This value was from sampling conducted before the MCL went into effect on August 26, 2020. Values from subsequent sampling were all below the MCL because of actions taken in accordance with, or a direct consequence, of the August 26, 2020 NYSDOH regulatory amendments. In this case, the only well that had detections of 1,4-dioxane above the newly enacted MCL in August 2020 was taken out of service in October of 2019.

### \*\*Additional Nitrate Educational and Health Language:

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. If you are caring for an infant, you should ask for advice from your health care provider.

### USEPA Health Advisory Definitions:

Health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. USEPA's Health Advisories are non-enforceable and non-regulatory and provide technical information to states agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.



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## Special Message about new Regulations on Emerging Contaminants by NYSDOH:

On August 26, 2020, NYS adopted new drinking water standards for public water systems that set maximum contaminant levels (MCLs) of 10 parts per trillion (ppt) each for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), and 1 part per billion (ppb) for 1,4-dioxane.

### About Drinking Water Standards and MCLs

A MCL is the highest level of a contaminant allowed in drinking water delivered by public water systems. They are enforceable regulatory limits. MCLs are set far below levels that cause health effects. According to the NYSDOH, because MCLs are set at levels with a large margin of protection, an exceedance of an MCL does not mean that water is unsafe for use while the public water system takes actions to reduce the levels.

The USEPA has also established guidance for the presence of PFOA and PFOS in drinking water. The USEPA has established a non-enforceable health advisory level of 70 parts per trillion (ppt) for the sum of PFOA and PFOS. An MCL for 1,4-Dioxane in drinking water has not been established by the USEPA.

### What Are Emerging Compounds?

1,4-Dioxane is a synthetic industrial chemical that is present in many goods, including paint strippers, dyes, greases, antifreeze, and aircraft deicing fluids, and in some consumer products such as deodorants, shampoos and cosmetics.

PFOA/PFOS are per- and polyfluoroalkyl substances (PFAS), which are a group of man-made chemicals that can be found in food packaging; commercial household products, including stain- and water-repellent fabrics (ex: Scotchgard), nonstick products (e.g., Teflon), polishes, waxes, paints, and cleaning products; and fire-fighting foams.

Emerging compounds can enter our water resources after being landfilled, spilled, discharged as waste, or by seepage and infiltration into the water table, eventually entering water supplies.

### NYAW's Action Plan

In advance of the adoption of these new standards by the State, New York American Water tested its entire water supply to determine the presence of these emerging compounds.

NYAW determined that, of the 55 sites that supply water across NYAW's service areas in Long Island and upstate New York, one site in your district has detections of emerging compounds above the New York State MCLs. This site has detections of 1,4-Dioxane at Plant #16 in Roosevelt. This plant was taken out of service in October 2019 and is not being used.

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 USEPA 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.

NYAW is pursuing the appropriate treatment where needed. While new treatment will take time to fully install, NYAW's proactive approach has significantly reduced the time needed to install the right treatment system for our customers.

For more information, please contact our Customer Service Center at 1-877-426-6999 or NYAW's Water Quality Manager at 516-632-2239.



## Listing of Non-Detected (ND) Contaminants – 2020 (SA1: Lynbrook Operations):

None of the following compounds that we analyzed for were detected in your drinking water at the respective method detection levels:

### Microbiological:

E. coli

### Inorganics & Physical:

Ammonia as N  
Cyanide, free  
Fluoride  
Nitrite as N  
Perchlorate  
Surfactants (as MBAS)

### Metals:

Antimony  
Barium  
Boron  
Cadmium  
Chromium  
Cobalt  
Mercury  
Molybdenum  
Nickel  
Potassium  
Selenium  
Silver  
Strontium  
Thallium  
Vanadium  
Zinc

### Miscellaneous:

Asbestos fibers

### Volatile Organic Compounds

#### (VOC's):

1,1,2-trichloro 1,2,3-trifluoroethane  
Benzene  
Bromobenzene  
Bromochloromethane  
Bromomethane  
n-Butylbenzene  
sec-Butylbenzene  
tert-Butylbenzene  
Carbon Tetrachloride  
Chlorobenzene  
Chloroethane

Chloromethane  
2-Chlorotoluene  
4-Chlorotoluene  
Dibromomethane  
1,2-Dichlorobenzene  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene (Meta)  
Dichlorodifluoromethane  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethane  
cis-1,2-Dichloroethane  
trans-1,2-Dichloroethane  
1,2-Dichloropropane  
1,3-Dichloropropane  
2,2-Dichloropropane  
1,1-Dichloropropene  
cis-1,3-Dichloropropene  
trans-1,3-Dichloropropene  
Ethylbenzene  
Hexachlorobutadiene  
Isopropylbenzene  
4-Isopropyltoluene  
Methylene Chloride (Dichloromethane)  
n-Propylbenzene  
Styrene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethene (PCE)  
Toluene  
1,2,3-Trichlorobenzene  
1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethene (TCE)  
Trichlorofluoromethane  
1,2,3-Trichloropropane  
1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
M-Xylene  
O-Xylene  
P-Xylene  
Vinyl Chloride

### Synthetic Organic Compounds

#### (SOC's):\*

##### Regulated Group #1:

Alachlor  
Aldicarb  
Aldicarb Sulfone  
Aldicarb Sulfoxide  
Atrazine

Carbofuran  
Chlordane, Total  
1,2-Dibromo-3-Chloropropane (DBCP)  
2,4-D  
Endrin  
1,2-Dibromomethane (EDB)  
Heptachlor  
Heptachlor Epoxide  
Lindane  
Methoxychlor  
PCB's  
Pentachlorophenol  
Toxaphene  
2,4,5-TP (Silvex)

##### Regulated Group #2:

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)

##### Unregulated SOC's:\*

2,4-DB  
2,4,5-T  
3,5-Dichlorobenzoic Acid  
Acifluorfen  
Bentazon  
Dichlorprop  
Methiocarb

*\* Synthetic Organic Compounds (SOC's) are mainly Pesticides and Herbicides and are required to be sampled on raw water wells, as per NCDOH requirements.*



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