

# 2020 ANNUAL WATER QUALITY REPORT

## Locust Valley Water District 226 Buckram Road, Locust Valley

Public Water Supply Identification No: 2902833

In accordance with Title Three of Article Eleven of the New York State Public Health Law and the 1996 United States Environmental Protection Agency (USEPA) Safe Drinking Water Act regulations, the following is the 2020 Annual Water Quality Report of the Locust Valley Water District.

Established in 1922, the Locust Valley Water District, with over 2,567 residential and commercial service connections, supplies a population of approximately 7,500 through 60 miles of interconnected pipeline. The District serves Locust Valley, Lattingtown and sections of Mill Neck, Matinecock and Glen Cove.

As defined by the United States Geological Survey (USGS), the District's water source is groundwater from the Lloyd, North Shore and Upper Glacier Aquifers in the Locust Valley, Lattingtown and Matinecock area. With a total pumping capacity of 10.2 million gallons per day, six wells, located on six separate well fields, and two 1-million-gallon storage tanks adequately supply consumer and fire fighting demands.

In 2020, Well #8, located on Duck Pond Road in Matinecock, was limited in use as perchlorate, an unregulated contaminant, remained above an action level set by the New York State Department of Health (NYSDOH).

In 2020, 706.805 million gallons of water were withdrawn from the aquifers. The District's average demand was 1.936 million gallons per day (MGD) with a peak demand of 6.34 MGD on June 24, 2020. Consumer meters registered 95.5% of the water demand. The remaining 4.5% is attributed to unaccountable demands such as water main and service leaks,

water main and hydrant flushing, well construction, firefighting and training, road maintenance, and aging water meters. On average, consumers this year paid a total of \$690 for water, excluding taxes.

The District routinely monitors the drinking water quality to insure its safety. No distribution samples exceeded the maximum contaminant levels as set by the NYSDOH. The District monitors more frequently than required by State standards to insure the quality of the community's drinking water supply. Tests were performed for coliform bacteria, inorganic compounds, nitrates/nitrites, perchlorate, volatile organic compounds, trihalomethanes, haloacetic acids, radiological levels, synthetic organic compounds, as well as unregulated chemicals. The constituents that were found are listed in the Table of Detected Parameters. It is for this reason that the District and Nassau County Department of Health (NCDOH) do not recommend the use of unregulated private wells for domestic consumption.

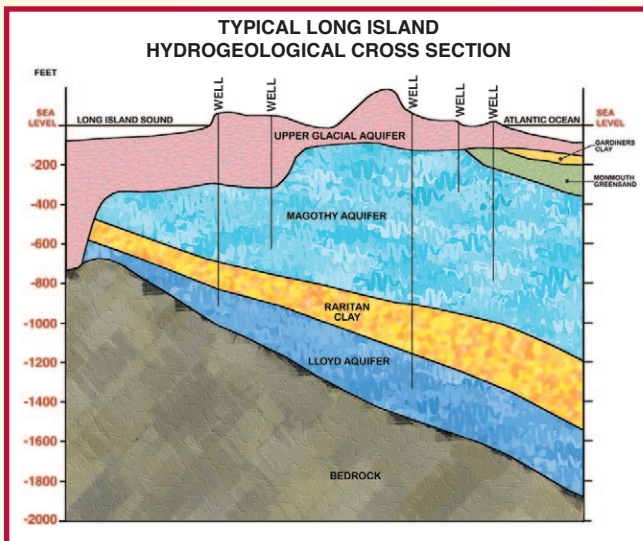
Drinking water, including bottled water, may reasonably be expected to contain at least a small amount of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or by looking online at [www.epa.gov/safewater](http://www.epa.gov/safewater) or [www.health.state.ny.us](http://www.health.state.ny.us).

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 and 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 human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

To ensure that tap water is safe to drink, the State and the USEPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the U.S. Food and Drug Administration's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The NYSDOH source water assessment for this system, based on available information, evaluated possible and actual threats to the drinking water source. Source water assessments provide resource managers with information for pro-

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*Aquifer System*

## 2020 WATER QUALITY REPORT - TABLE OF DETECTED PARAMETERS

Parameters or Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
<b>Inorganic Contaminants</b>							
Copper	No	July 2020	ND - 0.087 0.068 <sup>(1)</sup>	mg/l	1.3	AL = 1.3	Corrosion of galvanized pipes; erosion of natural deposits
Lead	No	July 2020	ND - 8.1 ND <sup>(1)</sup>	ug/l	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Barium	No	09/01/20	ND - 0.088	mg/l	2	MCL = 2.0	Naturally occurring
Zinc	No	09/09/20	ND - 0.041	mg/l	n/a	MCL = 5.0	Naturally occurring
Sodium	No	09/08/20	6.7 - 31.8	mg/l	n/a	No MCL <sup>(2)</sup>	Naturally occurring
Chloride	No	09/01/20	3.7 - 43.4	mg/l	n/a	MCL = 250	Naturally occurring
Nitrate	No	10/06/20	2.4 - 6.0	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	09/01/20	ND - 33.3	mg/l	n/a	MCL = 250	Naturally occurring
Calcium	No	09/01/20	7.4 - 20.1	mg/l	n/a	No MCL	Naturally occurring
Nickel	No	08/31/20	ND - 5.3	ug/l	n/a	MCL = 100	Naturally occurring
Magnesium	No	09/01/20	3.3 - 8.7	mg/l	n/a	No MCL	Naturally occurring
Perchlorate	No	10/06/20	ND - 9.6	ug/l	n/a	AL = 18 <sup>(3)</sup>	Fertilizer, matches, road flares, and fireworks
<b>Radiological</b>							
Gross Alpha	No	09/21/20	ND - 2.83	pCi/L	n/a	MCL = 15	Erosion of natural deposits
Gross Beta	No	08/24/20	0.22 - 2.23	pCi/L	n/a	MCL = 50	Erosion of natural deposits
Radium 226 & 228 Combined	No	09/21/20	0.39 - 1.45	pCi/L	n/a	MCL = 5 <sup>(4)</sup>	Erosion of natural deposits
Uranium	No	09/21/20	ND - 1.415	ug/l	n/a	MCL = 30	Erosion of natural deposits
<b>Volatile Organic Contaminants</b>							
cis - 1, 2-Dichloroethene	No	09/09/20	ND - 1.3	ug/l	0	MCL = 5	Industrial discharge
<b>Disinfection By-Products</b>							
Total Trihalomethanes	No	05/27/20	1.2 - 1.3	ug/l	0	MCL = 80	Disinfection by-product
<b>Synthetic Organic Contaminants (SOCs)</b>							
1,4-Dioxane	No	04/05/20	ND - 0.33	ug/l	n/a	MCL = 1.0	Industrial Discharge <sup>(5)</sup>
Perfluorooctanoic Acid (PFOA)	No	10/06/20	ND - 3.2	ng/l	n/a	MCL = 10 <sup>(6)</sup>	Industrial Discharge, Firefighting Foam <sup>(7)</sup>
<b>UCMR3</b>							
Hexavalent Chromium	No	08/24/20	0.46 - 1.9	ug/l	n/a	No MCL <sup>(8)</sup>	Natural deposits
Perfluorononanoic Acid	No	10/06/20	ND - 3.3	ng/l	n/a	MCL = 10	Industrial discharge <sup>(7)</sup>
<b>Physical Characteristics</b>							
Total Alkalinity	No	08/25/20	16.1 - 51.0	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids	No	09/01/20	ND - 181.0	mg/l	n/a	No MCL	Naturally occurring
pH	No	Continuous	7.0 - 8.1	pH units	n/a	7.5 - 8.5 <sup>(9)</sup>	Measure of water acidity or alkalinity
<b>Disinfectant</b>							
Chlorine Residual	No	Continuous	0.6 - 1.1	mg/l	n/a	MRDL = 4.0	Measure of Disinfectant

(1) – During 2020 we collected and analyzed 20 samples for lead and copper. The 90% percentile level is presented in the table. The values reported for lead and copper represents the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected in our water system. The action levels for both lead and copper were not exceeded at any site tested. Resampling is scheduled for 2023.

(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 moderately sodium diets.

(3) – Perchlorate is an unregulated contaminant, however, the New York State Dept. of Health has established an action level of 18 ug/l.

(4) – MCL for Radium is for Radium 226 and Radium 228 combined.

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

(6) – The US 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) maximum contaminant level (MCL) is 10 ppt for PFOA and 10 ppt for PFOS as of August 2020.

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

(8) – MCL of 100 ug/l is for Total Chromium. There is no MCL for Hexavalent Chromium.

(9) – Nassau County Department of Health guideline.

### 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.

**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).

**pCi/L** - pico Curies per Liter.

**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.

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

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protecting source waters into the future. The 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.

The District's drinking water is derived from six (6) wells. The source water assessment has rated two (2) of the wells as having a very high susceptibility to industrial solvents and a high to very high susceptibility to nitrates, and one well having a high susceptibility to microbial contamination. The very high susceptibility to industrial solvents is due primarily to point sources of contamination related to transportation routes, industrial facilities and gas stations in the assessment area. The high susceptibility to nitrate and microbial contamination is attributable to unsewered high density residential land use and related activities in the assessment area, such as fertilizing lawns.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Water District, as noted on page 4.

The tables on page 2 are the analytical results of the distribution system samples required by the USEPA, NYSDOH and NCDOH from January 1, 2020 to December 31, 2020. The District also takes eight (8) bacteriological samples per month at designated points throughout the service area. A yearly supplement containing water quality data for the District's six (6) wells is available at the District office, on the District website or can be mailed to consumers upon request.

The District's distribution water met all federal and state microbiological, chemical and radiological quality requirements. As indicated through District monitoring and testing, some constituents have been detected. The USEPA and the NYSDOH have determined that your water is safe at these levels.

During 2020, the District, using calcium hypochlorite, maintained a range of 0.5 to 1.1 parts per million (ppm) of chlorine throughout the distribution system. In accordance with State

regulations, the minimum level is 0.2 ppm and the Maximum Residual Disinfection Level (mrdl), the level below which there are no known health effects, is 4.0 ppm. Maximum Residual Disinfection Level Goals (mrdlg) do not reflect the benefits of the use of disinfectants to control microbial contamination.

To reduce the natural corrosiveness of the water found in this region, the District also added sodium hydroxide to the water to raise its pH before entering the distribution system. This treatment has allowed for the Lead and Copper testing program to be under reduced monitoring in accordance with federal and state requirements. The 2020 sampling yielded overall results below mandated action levels with 90th percentile levels of <1.0 ug/l for lead and 0.1 mg/l for copper.

If present, elevated lead levels 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 District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for a minimum of 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 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

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.

Some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy; those who have undergone organ transplants; people with HIV, AIDS or other immune system disorders; some elderly and infants can be particularly at risk for infections and should seek advice from

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their health care providers 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 Safe Drinking Water Hotline. For additional information please contact the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Interconnections with neighboring water districts give the Locust Valley Water District the capacity to utilize water in emergencies if available. Locust Valley currently has interconnections with the City of Glen Cove, the Village of Bayville and the Jericho Water District. The Jericho Water District has received a deferral from the New York State Department of Health for the new 1,4-Dioxane Maximum Contamination Level (MCL) in order to meet the changes in potable water requirements.

The Jericho Water District was granted an MCL deferral for 1,4-dioxane in 2020 because it has been proactive in its efforts to establish and implement an action plan for managing the above-referenced compound.

When a public water system (PWS) is issued a deferral, the water system agrees to a schedule for corrective action and compliance with the new PFOS, PFOA or 1,4-dioxane MCLs. In exchange, the New York State Department of Health (the Department) agrees to defer enforcement actions, such as assessing fines, if the PWS is meeting established deadlines. Deferral recipients are required to update the Nassau County Department of Health each calendar quarter on the status of established deadlines. The Department can resume enforcement if the agreed upon deadlines are not met. Locust Valley has an interconnection that allows us to take water from the Jericho Water District that is currently operating under a deferral. Information about that system's deferral and established deadline can be found at the following site [WWW.Jerichowater.org](http://WWW.Jerichowater.org) Locust Valley Water will update the status of that interconnection at the following address [www.Locustvalleywater.com](http://www.Locustvalleywater.com) to indicate if it is active. The interconnection with the Jericho Water District is normally closed throughout the year and only opened in a water emergency to maintain system pressure.

In 2020, having bond authorization from the Town of Oyster Bay for infrastructure improvements, the District continued to upgrade our computerized Supervisory Control and Data Acquisition, or SCADA, for well plant operations and monitoring; completed construction of a Granulated Activated Carbon, or GAC, filter at Well #6 on 10th Street for the removal of low level Principal Organic Compounds. Various hydrant and valve replacements were also completed throughout the District.

To conserve the District's water supply, lawn irrigation is restricted by Nassau County Conservation Ordinance 248-A-1987. Water for irrigation accounts for over 60 percent of the District's annual production. Considerable cost savings are available if consumers adhere to good landscaping practices such as retrofitting Smart technology to existing irrigation systems, employing appropriate sloping and grading methods to optimize natural runoff, and using drought resistant plantings

and grasses. Other conservation measures include correcting leaking fixtures, installing water saving appliances and daily conscientious water use. For further conservation information, consumers can contact the Cornell Cooperative Extension at 1-516-565-5265 ext.11 or [www.ccenassau.org](http://www.ccenassau.org); the New York State Public Service Commission at 1-518-474-7080 or at [www.askPSC.com](http://www.askPSC.com); or the American Water Works Association at 1-800-926-7337 or [www.awwa.org](http://www.awwa.org).

The following tables are the 2021 rate structures of the Locust Valley Water District:

**INSIDE DISTRICT (QUARTERLY)**

0 – 25,000	.....	\$2.40 / 1,000 GALLONS (minimum charge \$24.00)
25,001 – 50,000	....	\$2.80 / 1,000 GALLONS
50,001 – 100,000	...	\$3.20 / 1,000 GALLONS
OVER 100,001	.....	\$3.60 / 1,000 GALLONS

ANNUAL PROPERTY TAX RATE: \$47.01 / \$100 OF ASSESSED VALUATION

**OUTSIDE DISTRICT (QUARTERLY)**

0 – 25,000	.....	\$3.50 / 1,000 GALLONS (minimum charge \$35.00)
25,001 – 50,000	....	\$3.90 / 1,000 GALLONS
50,001 – 100,000	...	\$4.30 / 1,000 GALLONS
OVER 100,000	.....	\$4.70 / 1,000 GALLONS
NO PROPERTY TAX ASSESSMENT		

The Board of Water Commissioners welcomes all consumers with ideas for improvement. Public meetings are held on the second and fourth Wednesday of the month at 5:30 p.m. in the District office at 226 Buckram Road, Locust Valley.

For a copy of this report or further information about your drinking water supply system, please visit the District's informational website at [www.locustvalleywater.com](http://www.locustvalleywater.com).

If there are any questions regarding the Annual Water Quality Report or Sample Supplement for 2020, please contact the District Superintendent, Dominick Scaperotta, at tel.# (516) 671-1783, Monday through Friday, 8 a.m. to 4:30 p.m. For additional information, please contact the NCDOH at (516) 227-9692.

**Board of Water Commissioners**

Louis P. Savinetti  
Patricia Peterson  
Peter G. Brown