

**LOCUST VALLEY WATER DISTRICT
2022 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
Inorganic Contaminants							
Copper	No	July 2020	ND - 0.087 0.068 ⁽¹⁾	mg/l	1.3	AL = 1.3	Corrosion of galvanized pipes; Erosion of natural deposits
Lead	No	July 2020	ND - 8.1 ND ⁽¹⁾	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	07/26/22	0.019 - 0.087	mg/l	2	MCL = 2.0	Naturally occurring
Fluoride	No	07/12/22	ND - 0.18	mg/l	4	MCL = 4.0	Naturally occurring
Zinc	No	09/12/22	ND - 0.035	mg/l	n/a	MCL = 5.0	Naturally occurring
Sodium	No	09/12/22	8.3 - 12.0	mg/l	n/a	No MCL ⁽²⁾	Naturally occurring
Chloride	No	09/12/22	14.6 - 38.0	mg/l	n/a	MCL = 250	Naturally occurring
Nitrate	No	11/09/22	1.5 - 4.5	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	09/12/22	11.0 - 20.5	mg/l	n/a	MCL = 250	Naturally occurring
Calcium Hardness	No	09/12/22	23.3 - 89.1	mg/l	n/a	No MCL	Naturally occurring
Calcium	No	09/12/22	9.2 - 13.9	mg/l	n/a	No MCL	Naturally occurring
Nickel	No	08/04/22	ND - 0.00079	ug/l	n/a	MCL = 100	Naturally occurring
Magnesium	No	09/12/22	3.8 - 5.4	mg/l	n/a	No MCL	Naturally occurring
Perchlorate	No	08/16/22	ND - 16.8	ug/l	n/a	AL = 18 ⁽³⁾	Fertilizer, matches, road flares, fire works
Radiological							
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 ⁽⁴⁾	Erosion of natural deposits
Uranium	No	09/21/20	ND - 1.415	ug/l	n/a	MCL = 30	Erosion of natural deposits
Volatile Organic Contaminants							
1,1-Dichloroethane	No	06/01/22	ND - 0.75	ug/l	0	MCL = 5	Industrial Discharge
cis -1,2-Dichloroethene	No	09/06/22	0.87 - 1.1	ug/l	0	MCL = 5	Industrial Discharge
Disinfection By-Products							
Chloroform	No	05/09/22	ND - 1.9	ug/l	0	MCL = 80	Disinfection by-product
Bromodichloromethane	No	05/10/22	ND - 2.3	ug/l	1	MCL = 80	Disinfection by-product
Dibromochloromethane	No	05/11/22	ND - 1.8	ug/l	2	MCL = 80	Disinfection by-product
Bromoform	No	05/12/22	ND - 0.58	ug/l	3	MCL = 80	Disinfection by-product
Total Trihalomethanes	No	05/13/22	ND - 6.6	ug/l	4	MCL = 80	Disinfection by-product
Synthetic Organic Contaminants (SOCs)							
1,4-Dioxane	No	11/09/22	0.03 - 0.33	ug/l	n/a	MCL = 1.0	Industrial Discharge ⁽⁵⁾
Perfluorooctanesulfonic Acid (PFOS)	No	02/08/22	ND - 2.0	ng/l	n/a	MCL = 10	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid (PFOA)	No	02/08/22	ND - 4.3	ng/l	n/a	MCL = 10	Released into the environment from widespread use in commercial and industrial applications ⁽⁷⁾
UCMR3							
Hexavalent Chromium	No	07/12/22	0.52 - 1.8	ug/l	n/a	No MCL ⁽⁸⁾	Natural Deposits
Physical Characteristics							
Total Alkalinity	No	09/12/22	22.6 - 36.0	mg/l	n/a	No MCL	Naturally occurring
Total Hardness	No	09/12/22	38.6 - 89.1	mg/l	n/a	No MCL	Naturally occurring
Total Dissolved Solids	No	09/12/22	93.0 - 147.0	mg/l	n/a	No MCL	Naturally occurring
pH	No	Continuous	5.7 - 5.8	pH units	n/a	n/a	Measure of water acidity or alkalinity
Disinfectant							
Chlorine Residual	No	Continuous	0.5 - 0.8	mg/l	n/a	MRDL = 4.0	Measure of disinfectant

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.

⁽¹⁾ - During 2020 we collected and analyzed 20 samples for lead and copper. The 90th 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 Health Dept. 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.