



2024 Consumer Confidence Report on
Water Quality for 2023

Annual Water Quality Report

Lynbrook Operations District

Public Water Supply ID# NY2902835



Message from the President

Dear Liberty Customers,

At Liberty, our priority is providing you with safe, quality drinking water every single day. We pride ourselves on the investments we make to accomplish this – from improving infrastructure to enhancing our operations – we work around the clock to ensure your drinking water meets and exceeds all Safe Drinking Water Act (SDWA) standards established by the United States Environmental Protection Agency (EPA) and New York State Department of Health (NYSDOH).

We invest responsibly in our water infrastructure because strong infrastructure is a key factor in delivering quality water. Additionally, we have a rigorous water quality program that ensures the water delivered to your home or business is tested by independent laboratories. We send the data from those tests to our local regulators to verify compliance with all applicable SDWA and NYSDOH water regulations.

In this Water Quality Report (Consumer Confidence Report), you will find detailed information regarding the quality of water we provided during the calendar year 2023. The report includes information about the source of your water, the areas we serve, substances found in your drinking water with a detailed description on their source and need for removal. In addition, it outlines our intricate production process and distribution system.

If you have questions about this report, please contact us at 1-877-426-6999 TDD:711. We encourage you to visit our website at www.libertyenergyandwater.com to stay up-to-date and receive tips about water conservation which can help preserve this natural resource for future generations.

Along with the entire Liberty family, I thank you for being a valued customer. We are proud to be your water provider and look forward to serving you for years to come.

Sincerely,
Deborah Franco
President, Liberty New York Water

To request a printed copy of this report, please call us at 1-877-426-6999 TDD:711. This report can also be found at www.libertyenergyandwater.com.

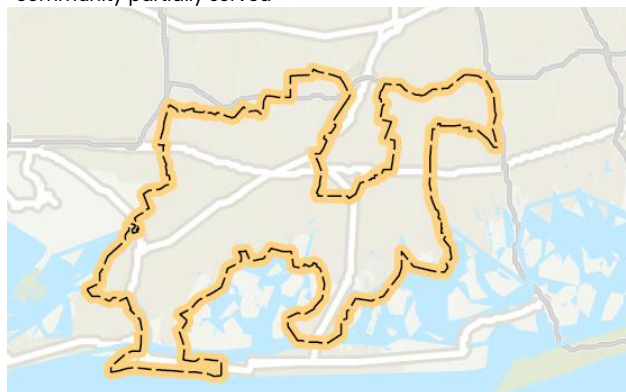
Where Does My Water Come From?

The Lynbrook water system serves approximately 225,000 people through 75,000 connections. Our water source is groundwater wells located in the aquifer system beneath the land surface. The water is treated as prior to distribution in six ways. Sodium hypochlorite is added to the water bacteriological disinfection. Caustic Soda (25% Sodium Hydroxide) is added to raise pH and minimize corrosivity to water mains and household plumbing (at 16 out of 20 locations). Lime (Calcium Hydroxide) is added to raise pH and minimize corrosivity to water mains and household plumbing (at 4 out of 20 locations). There is filtration to remove naturally occurring Iron at 13 out of 20 well treatment locations. Sodium Silicate is added to stabilize (sequester) iron not removed by filtration, and for corrosion control purposes, at all treatment plant locations. Lastly, there are Air strippers to remove volatile organics at one location.

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
Lakeview	

*community partially served



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. Lynbrook Operations has wells in the Upper Glacial, Magothy, Jameco and Lloyd aquifers.



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 the CDM 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.



What are Drinking Water Standards?

Drinking water standards are the regulations set by the USEPA to control the level of contamination in the nation's drinking water. The USEPA and the NYSDOH are the agencies responsible for establishing drinking water quality standards in New York. This approach includes assessing and protecting drinking water sources; protecting wells and surface water; making sure water is treated by qualified operators; ensuring the integrity of the distribution system; and making information about water quality available to the public. The water delivered to your home meets the standards required by the USEPA and the NYSDOH.

This report describes those contaminants that have been detected in the analyses of almost 200 different potential contaminants, nearly 100 of

which are regulated by the USEPA and the NYSDOH. Liberty is proud to tell you that there have been no contaminants detected that exceed any federal or state drinking water standards. Hundreds of samples are analyzed every year by a NYS certified laboratory. Sample results are available on the Table in this report. This report is intended to provide information for all water users. If received by an absentee landlord, a business, or a school, please share the information with tenants, employees, or students. We are happy to make additional copies of this report available; please call Liberty's Water Quality Manager at 516-273-5670. You may also access this report on the Liberty web page at www.libertyenergyandwater.com.

Be Water Smart – Think Conservation

The New York State Department of Environmental Conservation (NYSDEC) requested that all Long Island water suppliers reduce their peak pumpage by 15 percent to ensure 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 Liberty 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, hints, and dye tablets to help you determine if you have a wasteful water loss.
- 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.



Substances That Could be in Water

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 activity.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (USFDA) also establishes limits for contaminants in bottled water that 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 USEPA Safe Drinking Water Hotline at 1-800-426-4791. For information on bottled water visit the USFDA website at www.fda.gov

Do I Need to Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 about drinking water from their health care providers. The USEPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the 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, we thought 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 10 parts per billion, and for copper, below 0.3 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 2023 with similar results. The next round of homeowner monitoring for the Lead and Copper Rule will be completed semiannually in 2024.

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.

Liberty Utilities 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>.

System Improvements

In 2023, we continued to make significant upgrades to our system and infrastructure.

These improvements include.

- Replaced approximately 14,741 feet of water main throughout the service territory.
- Replaced 16 fire hydrants and Added 2 new fire hydrants.
- Replaced 242 service lines.
- Replaced approximately 3,254 water meters.
- Replaced pump and rehab Well 1-18.

Capital Improvements planned for 2024 include:

- Replace approximately 15,000 feet of water main throughout the service territory.
- Replace approximately 8 fire hydrants and add 2 new fire hydrants.
- Replace approximately 100 service lines.
- Replace approximately 22,400 water meters.
- Rehab Wells 1-13, 1-17 and 18-1.

2023 STATISTICS AT-A-GLANCE

Wells Closed/Restricted	Nine
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	9,388,635,000 Gal.
Total Water Sales	8,080,277,200 Gal.
Population Served (approx.)	225,000
Customers Served (accounts)	75,000
Miles of Mains	723

Average Residential Usage & Cost

In 2023, the average customer usage (residential and commercial) used approximately 107,737 gallons of water at a cost of \$1,156, or \$3.16 a day. With an average of 3.0 persons per household, the cost of water was about \$1.05 a day per person.



Important Health Information

Lead

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. Lynbrook Water System is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested,

contact Liberty NY Water at 1-877-426-6999 TDD:711.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Combined radium 226 and 228

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Is Our Water System Meeting Other Rules That Govern Our Operations?

During 2023, Lynbrook water system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

How Might I Become Actively 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
- Responding to survey requests
- Attending presentations by the company made to local community and civic associations. Dates in 2024 TBD.
- Contacting agencies such as the Nassau County Health Department (NCDOH) at 516-227-9692.

Testing Results

During the year, Liberty collects water samples to determine the presence of any radioactive, biological, inorganic, or organic contaminants. All of the substances listed in the table below tested under the Maximum Contaminant Level (MCL). Liberty believes it is important you know what was detected, and how much of the substance was present. The state allows the monitoring of certain substances less than once a year because the concentrations of these substances do not change frequently. If a substance was tested and there was no detection, it is not listed in this table. You can find Definitions, Terms and Abbreviations related to this Table in the next section for easy reference.

Lynbrook 2023 Annual Water Quality Report						
PRIMARY STANDARDS - Health Based						
DISTRIBUTION SYSTEM						
Disinfectant Residuals	Violation? (Yes/No)	Date of Sample	MRDL/ MCL	MCLG	Average/ Range	Typical Source of Constituent
Chlorine (ppm) ¹	No	12/2023	4	N/A	1.02 0.21 – 1.77	Drinking water disinfectant added for treatment.
Total Coliform	No	10/2023	TT ≥ 5% samples positive	N/A	1 positive sample	Naturally present in the environment.
Disinfection By-Products ²	Violation? (Yes/No)	Date of Sample	Primary MCL	MCLG	Detection	Typical Source of Constituent
TTHMs (ppb)	No	Quarterly 2023	80	N/A	4.3 – 5.7 Highest RAA- 5.38	Byproduct of drinking water disinfection.
HAA5s (ppb)	No		60	N/A	ND – 10.3 Highest RAA- 2.58	

Lead & Copper ³	Violation? (Yes/No)	Date of Sample	AL	MCLG	Sample Data	Range of Detection	90th % Level	Typical Source of Constituent
Copper (ppm)	No	07- 10/2023	1.3	1.3	0 of the 100 samples collected exceeded the action level	0.037 – 1.2	0.24	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Lead (ppb)	No		15	0	2 of the 100 samples collected exceeded the action level.	ND – 17.3	3.8	

RAW WELLS							
Radiological Constituents ⁴	Violation? (Yes/No)	Date of Sample	Primary MCL	MCLG	Range of Detections	Typical Source of Constituent	
Combined Radium-226 & 228 (pCi/L)	No	12/2023	5	0	ND – 2.25	Erosion and decay of natural deposits.	
Gross Beta (pCi/L)	No	04/2023	50 ^a	0	ND – 3.90		
Uranium (ppb)	No	05/2023	30 ^b	0	0.06 – 0.10		
Gross Alpha activity (pCi/L)	No	12/2023	15	0	ND – 2.19		

Inorganic Constituents	Violation? (Yes/No)	Date of Sample	Primary MCL	MCLG	Range of Detections	Typical Source of Constituent
Barium (ppm)	No	06/2023	2	2	ND – 0.032	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes.
Beryllium (ppb)	No	06/2023	4	4	ND – 0.36	Discharge from metal refineries and coil-burning factories; Discharge from electrical, aerospace, and defense industries.
Copper (ppm)	No	06/2023	1.3	1.3	ND – 0.19	Erosion of natural deposits.
Lead (ppb)	No	03/2023	15	0	ND – 2.0	Erosion of natural deposits.
Mercury (ppb)	No	02/2023	2	2	ND – 0.23	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.

Arsenic (ppb)	No	07/2023	10	N/A	ND – 1.5	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Chloride (ppm)	No	10/2023	250	N/A	6.8 – 63.6	Natural occurring or indicative of road salt contamination.
Sulfate (ppm)	No	07/2023	250	N/A	5.3 – 51.8	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Cyanide (ppb)	No	02/2023	200	200	ND – 15.2	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
Turbidity (NTU) ⁵	No	06/2023	5	N/A	ND – 24	Soil runoff.
Zinc (ppm)	No	03/2023	5	N/A	ND – 0.09	Naturally occurring.

Organic Constituents	Violation? (Yes/No)	Date of Sample	Primary MCL	MCLG	Range of Detection	Typical Source of Constituent
1,4 dioxane (ppb) ⁶	No	01/2023	1	N/A	ND – 1.3	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorooctanoic acid (PFOA) ⁷	No	10/2023	10	N/A	ND – 11.0	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanesulfonic acid (PFOS)	No	07/2023	10	N/A	ND – 5.6	
Methyl Tertiary Butyl Ether (MTBE) (ppb) ⁸	No	07/2023	10	N/A	ND – 2.4	Releases from gasoline storage tanks. MTBE is an octane enhancer in unleaded gasoline. Atmospheric deposition.
Chlorodifluoromethane (ppb) ⁹	No	03/2023	5	N/A	ND – 0.81	Industrial discharges.
Tetrachloroethylene (ppb)	No	01/2023	5	N/A	ND – 3.5	Discharge from factories and dry cleaners; Waste sites; Spills.

SECONDARY STANDARDS – Aesthetics

RAW WELLS

Constituent	Violation? (Yes/No)	Date of Sample	Secondary MCL	MCLG	Average/ Range	Typical Source of Constituent
Sodium (ppm) ¹⁰	No	02/2023	N/A	N/A	5.4 – 65.9	Naturally occurring; Road salt; Water softeners.
Iron (ppm) ¹¹	No	06/2023	0.3	N/A	ND – 6.6	Naturally occurring.
Manganese (ppm) ¹²	No	06/2023	0.3	N/A	ND – 0.44	Naturally occurring.
Color (units) ¹³	No	06/2023	15	N/A	ND - 20	Natural color may be caused by decaying leaves, plants, and soil organic matter.
Odor (units)	No	02/2023	3	N/A	ND - 2	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.

UNREGULATED CHEMICAL MONITORING

RAW WELLS

Constituent	Violation? (Yes/No)	Date of Sample	Notification Level	Range of Detection	Typical Source of Constituent
Nickel (ppm)	N/A	02/2023	N/A	ND – 0.011	Naturally occurring.
Alkalinity (ppm)	N/A	02/2023	N/A	ND – 120	N/A
Calcium Hardness (ppm)	N/A	07/2023	N/A	1.4 – 27.2	N/A
Calcium (ppm)	N/A	07/2023	N/A	0.58 – 10.9	N/A
Corrosivity (LSI) ¹⁴	N/A	04/2023	N/A	(-6.83) – (-0.65)	N/A
Total Hardness (ppm)	N/A	07/2023	N/A	3.5 – 54.8	N/A
Magnesium (ppm)	N/A	02/2023	N/A	0.43 – 6.7	N/A
pH (units) ¹⁵	N/A	03/2023	N/A	6.5 – 7.9	N/A
TDS (ppm)	N/A	02/2023	N/A	31 - 223	N/A
Dacthal (ppb) ¹⁶	N/A	04/2023	50	ND – 2.8	Released to the environment through its use and application as an agricultural

					herbicide used on a wide range of vegetable crops.
Dalapon (ppb)	N/A	10/2023	50	ND – 1.1	Runoff from herbicide used on rights of way.
Perchlorate (ppb)	N/A	07/2023	18.0	ND – 6.8	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks.
Perfluorobutanoic acid (PFBA) (ppt)	N/A	10/2023	N/A	ND – 5.5	See footnote 17.
Perfluorohexanesulfonic acid (PFHxS) (ppt)	N/A	10/2023	N/A	ND – 8.4	
Perfluorohexanoic Acid (PFHxA) (ppt)	N/A	10/2023	N/A	ND – 6.9	
Perfluoropentanoic acid (PFPeA) (ppt)	N/A	10/2023	N/A	ND – 7.2	
Perfluorononanoic acid (PFNA) (ppt)	N/A	07/2023	N/A	ND – 4.2	
Perfluorobutanesulfonic acid (PFBS) (ppt)	N/A	10/2023	N/A	ND – 2.0	
Perfluoroheptanoic acid (PFHpA) (ppt)	N/A	10/2023	N/A	ND – 5.2	
6:2-Fluorotelomersulfonic acid (6:2 FTS) (ppt)	N/A	01/2023	N/A	ND – 6.8	
Nonafluoro-3,6-dioxahexanoic acid (NFDHA) (ppt)	N/A	01/2023	N/A	ND – 4.5	
Perfluoropentane sulfonic acid (PFPeS) (ppt)	N/A	04/2023	N/A	ND – 0.81	
Germanium (ppb)	N/A	07/2020	N/A	ND - 0.69	N/A

Notes:

- Chlorine residual results in the table above represent averages of samples taken at the treatment plant Point-of-Entry location to the distribution system.
- TTHM's mean the sum of: Bromoform, Bromodichloromethane, Dibromochloromethane, and Chloroform. The highest 'Locational Running Annual Average' was 5.38 pbb in 2023. HAA5's includes the sum of: Monochloroacetic acid, Dichloroacetic acid, Trichloroacetic acid, Bromoacetic acid, and Dibromoacetic acid. The highest 'Locational Running Annual Average' was 2.58 pbb in 2023.
- The level presented represents the 90th percentile of 100 sites tested. The "action level" for copper was not exceeded at any of 100 sites tested. The level presented represents the 90th percentile of 100 sites tested. The "action level" for lead was exceeded at 2 of the 100 sites tested.
- Radiological results are from raw water wells, and not distribution locations, as required by the NCDOH. (a) The State considers 50 pCi/L to be the level of concern for beta particles. (b) 30 µg/l of uranium is approximately 20.1 pCi/L
- Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statement in this document regarding Cryptosporidium. The well that had a turbidity reading of 24 NTU has filtration. The turbidity, post filtration, was 2.1 NTU, below the MCL.
- Laboratory studies show that 1,4 dioxane caused liver cancer in animals exposed at high levels throughout their lifetime. Whether 1,4 dioxane causes cancer in humans is unknown. The United States Environmental Protection Agency considers 1,4 dioxane as likely to be carcinogenic to humans based upon studies of animals exposed to high levels of this chemical over their entire lifetimes. 1,4 dioxane was detected in 1 well. The well was removed from service and resampled. All resamples were ND.
- PFOA caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOA in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA in animals. The well that had the MCL exceedance for PFOA was removed from service and resampled. The well blends with another well before entering the distribution system, so water going to the customer is below the MCL.
- MTBE- Methyl Tertiary Butyl Ether (MTBE) was detected in 2 out of 24 raw water wells tested but was not detected in distribution system samples. These two wells are sampled monthly.
- Chlorodifluoromethane (Freon-22) was detected in 2 out of 24 raw water wells tested but was not detected in distribution system samples. These two wells are sampled monthly.
- Sodium (mg/l): Water containing more than 20 mg/l of sodium should not be used for drinking by people on a severely restricted sodium diet. Water more than 270 mg/l of sodium should not be used for drinking by people on a moderately restricted diet.
- Higher levels of iron (up to 1,500 ppb) may be allowed by the state when justified by the water supplier, as is the case with Lynbrook Operations district, which treats with sodium silicate. The Total of iron and manganese should not exceed 500 ppb, unless allowed by the state, as is the case with Lynbrook Operations district. The maximum level detected above is on a well that has iron removal filtration prior

to distribution. Iron is essential for maintaining good health. However, too much iron can cause adverse health effects. Drinking water with very large amounts of iron can cause nausea, vomiting, diarrhea, constipation, and stomach pain. These effects usually diminish once the elevated iron exposure is stopped. A small number of people have a condition called hemochromatosis, in which the body absorbs and stores too much iron. People with hemochromatosis may be at greater risk for health effects resulting from too much iron in the body (sometimes called “iron overload”) and should be aware of their overall iron intake.

- 12- Manganese is an essential nutrient that is necessary to maintain good health. However, exposure to too much manganese can cause adverse health effects. There is some evidence from human studies that long-term exposure to manganese in drinking water is associated with nervous system effects in adults (e.g., weakness, stiff muscles and trembling of the hands) and children (learning and behavior). The results of these studies only suggest an effect because the possible influences of other factors were not adequately assessed. There is supporting evidence that manganese causes nervous system effects in humans from occupational studies of workers exposed to high levels of manganese in air, but the relevance of these studies to long term drinking water exposure is less clear because the exposures were quite elevated and by inhalation, not by ingestion.
- 13- Color has no health effects. In some instances, color may be objectionable to some people at as low as 5 units. Its presence is aesthetically objectionable and suggests that the water may need additional treatment. The well that 20 units of color was detected has filtration and the post filtration color sample was ND.
- 14- The NCDOH recommends that the Langelier Saturation Index (for corrosivity) be as close to zero as possible.
- 15- NCDOH guidelines recommend a pH range of 7.5 – 8.5. The running annual average of all pH readings in the distribution system was 7.74 units in 2023.
- 16- Dacthal also known as Dimethyl Tetrachloroterephthalate (DCPA) and Dalapon was analyzed on raw water wells, and not sampled on distribution locations, as per NCDOH requirements. Dacthal is detected in 9 wells and Dalapon is detected in 7 wells. These wells are all sampled quarterly for these constituents.
- 17- These chemicals are part of a larger group of chemicals referred to as perfluoroalkyl substances (PFASs). PFAS are manmade chemicals that have been widely used in various consumer, commercial, and industrial products since the 1950s. These chemicals' unique properties make them resistant to heat, oil, stains, grease, and water and useful in a wide variety of everyday products. The numbers reported here is the range of detections at the raw water wells.



Definitions, Terms and Abbreviations

90th %: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

HAA5: Haloacetic Acids (mono-, di- and tri-chloroacetic acid, and mono- and di- bromoacetic acid) as a group.

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL: Maximum Residual Disinfectant Level, or the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal, or the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: not applicable.

ND: not detectable at testing limits.

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

pCi/L: picocuries per liter, a measure of radioactivity.

ppb: parts per billion or micrograms per liter.

ppm: parts per million or milligrams per liter.

ppt: parts per trillion or nanograms per liter.

THM: Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

What Does This Information Mean?

As you can see by the table, our system had no sample limit violations in 2023. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

Why Save Water? How To Avoid Wasting It.

Although our system has an adequate amount of water to meet present and future demands, there are several 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 towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less. More efficient water use protects our valuable natural resource and conservation is easy. Useful tips for conserving include:

- Turn off the tap when brushing your teeth.
- Consider water and energy-efficient appliances. Upgrade to EPA certified Energy Star and WaterSense appliances to save both on water and energy without sacrificing performance. The USEPA reports that EPA-certified Energy Star washing machines may use 35% less water per load.
- Check every faucet, toilet, and showerhead in your home for leaks – 10 percent of homes have leaks that waste 90 gallons or more per day; don't be part of the 10%.

Check your toilets 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. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and save more than 30,000 gallons a year. More conservation tips and leak detection tools can be found at www.libertyenergyandwater.com.

Closing

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources. For questions concerning this report call Liberty Customer Service at 1-877-426-6999 TDD:711; or on the web at www.libertyenergyandwater.com.

Liberty – New York Water

60 Brooklyn Avenue

Merrick, NY 11566

Spanish Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.	French Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.
Korean 이러의 보고는 귀하에서 드시는 식수에 대한 중요한 정보가 포함되어 있습니다. 번역은 해설과 이 보고를 읽고 이해하는데 분나 알음하시기로 바랍니다.	Chinese 这份报告含有非常重要有关您喝的水的资料。请找懂得这份报告的人翻译或解释给您听。

Listing of Non-Detected (ND) Contaminants – 2023 (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:

Nitrite as N

Surfactants (as MBAS)

Nitrate as N

Ammonia

Metals:

Antimony

Cadmium

Chromium

Silver

Thallium

Fluoride

Miscellaneous:

Asbestos fibers

Volatile Organic Compounds (VOC's):

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-Dichloroethene

trans-1,2-Dichloroethene

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

1,1,2-trichloro 1,2,2-trifluoroethane

1,1,1,2-Tetrachloroethane

1,1,2,2-Tetrachloroethane

Toluene

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

M-Xylene

O-Xylene

P-Xylene

Vinyl Chloride

Synthetic (Specific) 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

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 compounds:

Perfluorodecanoic Acid (PFDA)

Perfluorododecanoic Acid (PFDoA)

Perfluorotridecanoic Acid (PFTTrDA)

Perfluorotetradecanoic Acid (PFTA)

Perfluoroundecanoic Acid (PFUnA)

11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)

4:2 Fluorotelomer sulfonic acid (4:2 FTS)

8:2 Fluorotelomer sulfonic acid (8:2 FTS)

9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)

4,8-dioxa-3H-perfluorononanoic acid (ADONA)

HFPO-DA (Gen-X)

Perfluoro(2-ethoxyethane)sulphonic acid (PFEEESA)

Perfluoroheptane sulfonic acid (PFHpS)

Perfluoro-4-methoxybutanoic acid (PFMBA)

Perfluoro-3-methoxypropanoic acid (PFMPA)