

Annual Water Quality Report

Arbor Hills Water System

Public Water Supply ID# NY5922910



Message from the President

Providing customers with safe, quality drinking water is a top priority for Liberty, and we are proud to present this Water Quality Report (Consumer Confidence Report) that shares detailed information regarding local water service and our compliance with state and federal quality standards during the 2021 calendar year.

Liberty makes significant investments each year to ensure the water we deliver to customers meets 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 order to maintain the local water infrastructure, because strong infrastructure is a key factor in delivering quality water. Additionally, we have a top-notch water quality program that ensures the water delivered to your home or business is thoroughly tested by independent laboratories and the data is provided to the state to verify compliance with all applicable SDWA and NYSDOH water regulations.

We know our customers rely on us to make sure the water at their tap is safe to drink, and we take that responsibility seriously. Our employees live in the local community and take great pride in providing quality water and reliable service to you and your neighbors.

If you have any questions about the information within this report, please don't hesitate to contact us anytime 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 and more.

On behalf of the entire Liberty family, thank you for being a valued customer and neighbor. We are proud to be your water provider.

Sincerely,
Chris Alario
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.

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



Where Does My Water Come From?

Arbor Hills water system serves over 210 people through 67 connections. Our water source is 4-drilled wells. Three are located on the right near the entrance and one is in the wooded area behind #38 Brundige. Wells 1 and 2 were in service in 2021. Wells 3 and 4 were not used. The water is disinfected with liquid sodium hypochlorite prior to distribution.

Source Water Assessment

The source water assessment has rated all three wells as having a medium-high susceptibility to microbials, and one of the wells as having a medium-high susceptibility to nitrates, industrial solvents, metals, and other industrial contaminants. These ratings are due primarily to the proximity of a permitted discharge facility (industrial / commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) to the wells and low-intensity residential land use practices in the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. The water is disinfected at the well station to ensure that that the finished water delivered into your home meets New York State's drinking water standards.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us at the telephone number provided in this report.



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 present in the wells in service 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.

Hundreds of samples analyzed every year by Liberty's contract certified laboratory assures that all primary (health-related) drinking water standards are being met. 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. You may also access this report on the Liberty web page at www.libertyenergyandwater.com.

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.

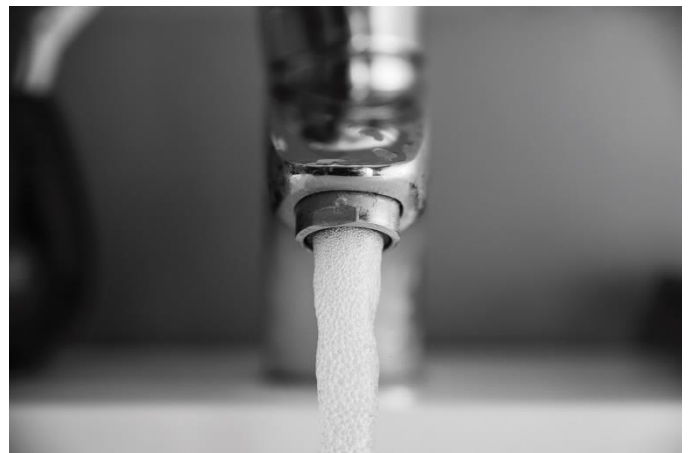
Inorganic Contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

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.

In order to ensure that tap water is safe to drink, the USEPA and the NYSDOH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The NYSDOH and 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 or visiting their website at <https://www.ground-water-and-drinking-water/national-primary-drinking-water-regulations>. 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 disease causing microorganisms 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.



Important Health Information

Lead

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. We are responsible for providing high-quality drinking water, but we 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. 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.

PFOA/PFOS

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/PFOS 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/PFOS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA/PFOS in animals.

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

During 2021, Arbor Hills water system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Inorganic Contaminants							
Barium	N	09/19/19 & 10/25/19	Average – 0.168 0.167- 0.168	mg/L	2	2	Erosion of natural deposits.
Nitrate	N	02/2021	2.4	mg/L	10	10	Erosion of natural deposits. Leaching from septic tanks. Run off from fertilizer use.
Chloride	N	09/19/19 & 10/25/19	Average – 75.1 (71.2 - 78.9)	mg/L	N/A	250	Natural occurring or indicative of road salt contamination.
Nickel	N	09/19/19 & 10/25/19	Average – 0.002 0.001- 0.002	mg/L	N/A	N/A	Naturally occurring.
Iron	N	09/19/19	0.013	mg/L	N/A	0.3	Naturally occurring.
Sodium	N	09/19/19 & 10/25/19	Average – 36.0 (33.9- 38.1)	mg/L	N/A	See Health Effects (footnote 1)	Naturally occurring; Road salt; Water softeners.
Sulfate	N	09/19/19 & 10/25/19	Average – 18.6 16.1- 21.1	mg/L	N/A	250	Naturally occurring.
Zinc	N	09/19/19	0.037	mg/L	N/A	5	Naturally occurring. Mining waste.
Manganese	N	09/19/19	0.007	mg/L	N/A	0.3	Naturally occurring.
Radiological Contaminants (footnote 2)							
Gross Alpha activity (including radium – 226 but excluding radon and uranium)	N	Quarterly 2021 EP Well 1 Well 2 Well 4*	10.33 (0.76 - 7.23) 2.43 (ND - 3.66) 3.03 (ND - 2.51) 106.12 (57.84–242.01)	pCi/L	0	15	Erosion and decay of natural deposits.
Combined Radium- 226 and 228	N	Quarterly 2021 EP Well 1 Well 2 Well 4*	2.73 (0.75 - 2.06) 1.52 (1.38 - 1.88) 1.93 (1.52 - 2.40) 42.33 (24.24 - 69.20)	pCi/L	0	5	
Gross Beta	N	Quarterly 2021 EP Well 1 Well 2 Well 4	7.89 (3.48 - 5.59) 4.32 (2.25 - 4.70) 7.03 (4.44 - 10.40) 40.68 (22.10 - 67.90)	pCi/L	0	50 (a)	
Uranium	N	Quarterly 2021 EP Well 1 Well 2 Well 4	5.89 (4.29 - 5.54) 4.36 (2.33 - 4.97) 7.99 (4.99 - 8.57) 5.48 (2.97 - 4.72)	ug/L	0	30 (b)	

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Disinfectant/ Disinfection By-product (D/DBP) Parameters (footnote 3)							
HAA5	N	08/2021	Avg- 9.1 (6.2- 12.0)	ug/L	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms; TTHMs are formed when source water contains large amounts of organic matter.
TTHM	N	08/2021	Avg- 13.0 (12.7 – 13.6)	ug/L	N/A	80	
Chlorine*	N	Daily- 2021	Avg- 1.24 (0.42 – 1.31)	mg/L	N/A	4	
Lead and Copper (Tap water at homeowner's premise) (footnote 4)							
Copper	N	06/2020	90 th percentile= 0.135 (0.035- 0.142)	mg/L	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead	N	06/2020	90 th percentile= 2.45 (ND- 3.50)	ug/L	0	15	
Synthetic Organic Contaminants (footnote 5)							
Perfluorooctanoic acid - (PFOA)	N	Quarterly 2021 EP Well 1 Well 2 Well 4	4.80 (4.17 - 5.86) 3.027 (2.93 - 3.70) 5.66 (4.71 - 6.55) 2.88 (1.29 - 4.05)	ng/l	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanesulfonic acid - (PFOS)	N	Quarterly 2021 EP Well 1 Well 2 Well 4	2.30 (2.21 - 2.41) 1.77 (1.52 - 1.99) 3.03 (2.18 - 4.11) 1.03 (ND - 1.28)	ng/l	N/A	10	
Unregulated Contaminants (footnote 6)							
Perfluorononanoic acid- (PFNA)	N	Quarterly 2021 Well 4	1.26 (0.68 - 1.86)	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications
Perfluorobutanesulfonic acid- (PFBS)	N	Quarterly 2021 EP Well 1 Well 2 Well 4	2.49 (2.25 - 2.72) 2.01 (1.75 - 2.30) 2.93 (2.15 - 3.60) 0.85 (0.65 - 1.24)	ng/l	N/A	N/A	
Perfluoroheptanoic acid- (PFHpA)	N	Quarterly 2021 EP Well 1 Well 2 Well 4	1.36 (1.37- 4.12) 0.92 (0.73 - 1.28) 1.59 (1.43 - 1.80) 2.76 (1.37 - 4.12)	ng/l	N/A	N/A	
Perfluorohexanesulfonic acid- (PFHxS)	N	Quarterly 2021 EP Well 1 Well 2	1.03 (ND - 1.14) 0.94 (0.76 - 1.05) 1.26 (0.75 - 1.79)	ng/l	N/A	N/A	
Perfluorohexanoic acid- (PFHxA)	N	Quarterly 2021 EP Well 1 Well 2 Well 4	2.28 (1.94 - 2.57) 1.40 (1.21 - 1.83) 2.95 (2.50 - 3.70) 3.06 (1.56 - 4.19)	ng/l	N/A	N/A	
N-Ethyl Perfluorooctanesulfonamide doacetic Acid (NEtFOSAA)	N	Well 1	0.79 (ND – 0.79)	ng/l	N/A	N/A	

- Notes**
- 1- 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.
 - 2- Radiological constituents were also sampled on raw water wells, as per health department requirements. Compliance is at the entry point, a true representation of water distributed to our customers. The numbers in the chart above is the max RAA along with the range of the constituents (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. * Well 4 was not used in 2021.

- 3- The Highest Level Detected from the table above for TTHM's and HAA's represent the highest level from the two distribution locations sampled. (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform). (HAA5 --- mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid). *Chlorine residual results in the table above represent averages of samples taken at the treatment plant Point-of-Entry location to the distribution system. The level detected from the table above for TTHM's and HAA's represent the highest level (from the two distribution locations sampled).
- 4- The level presented represents the 90th percentile of the 20 sites tested. 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 at your water system. The action level for lead and copper was not exceeded at any of the sites tested.
- 5- PFOA and PFOS 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. One of the PFAS' was widely used in fire-fighting foam. On August 26, 2020, New York State adopted new drinking water standards for public water systems that set maximum contaminant levels (MCLs) of 10 parts per trillion (10 ppt) each for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), and 1 part per billion (1 ppb) for 1,4-dioxane. We detected PFOA and PFOS at levels below the USEPA Health Advisory threshold. The numbers reported here is the running annual average of the quarterly samples taken at each sampling point along with the range of detections.
- 6- 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 running annual average of the quarterly samples taken at each sampling point along with the range of detections.



Definitions, Terms and Abbreviations

90th percentile: 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.

Entry Point (EP): location at which water enters the distribution system of a public water system.

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

LRAA: Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.

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.

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

ppb (mg/L): parts per billion or micrograms per liter.

ppm (ug/L): parts per million or milligrams per liter.

ppt (ng/L): parts per trillion or nanograms per liter

RAA: Running Annual Average, or the average of sample analytical results for samples taken during the previous four

calendar quarters.

TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

TTHM: 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 2021. 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 And How To Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water 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 whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your 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 you save more than 30,000 gallons a year.

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 or your water quality, please contact Natasha Niola, Water Quality Manager, at 516-632-2239 or Liberty Customer Service at 1-877-426-6999 TDD:711; or on the web at www.libertyenergyandwater.com.