Annual Drinking Water Quality Report for 2020
Arbor Hills Water Works
Lewisboro, New York 10590
Public Water Supply ID # NY5922910

INTRODUCTION

To comply with State regulations, **Arbor Hills Water Works** will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Environmental Consultants at 845-486-1030 or American Water at 1-877-426-6999. We want you to be informed about your drinking water.

WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to promote public health, the State and the EPA prescribe regulations which limit the number of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our 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 located in the wooded area behind #38 Brundige. The water is disinfected with liquid sodium hypochlorite prior to distribution. In July of 2020, well 3 was taken out of service and hydrofracked. This well remains out of service at this time and we truck in water to meet demand while well is out of service.

The NYSDOH 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 state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. 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 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 in the future. Our water is derived from 4-drilled wells. The source water assessment has rated one of the wells as having a medium-high susceptibility to microbial contamination and nitrates. These ratings are due 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 well. In addition, all wells draw from an unconfined aquifer of unknown hydraulic conductivity. While the source water assessment rates as well as being susceptible to microbial, please note that our water is disinfected to ensure that the finished water delivered to your home meet's New York State's drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area can be obtained by contacting American Water at 1-877-426-6999.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include total coliform, inorganic compounds, nitrate, nitrite, lead and copper, principal organic contaminants, total trihalomethanes, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the Westchester County Health Department at (914) 813-5000.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, MRDL or AL)	Likely Source of Contamination
Inorganic Contaminants							
Nitrate	NO	01/2020	1.89	mg/l	10	MCL = 10	Erosion of natural deposits Leaching from septic tanks Run off from fertilizer use.
Chloride	NO	09/19/19 & 10/25/19	Average – 75.1 (71.2 - 78.9)	mg/l	N/A	MCL = 250	Naturally occurring, road salt contamination.
Sodium	NO	09/19/19 & 10/25/19	Average – 36.0 (33.9- 38.1)	mg/l	N/A	See Health Effects (Note 1)	Naturally occurring, road salt contamination, water softeners, animal waste.
Chlorine Residual	NO	Daily	Average – 1.39 (1.06 -1.83)	mg/l	N/A	MRDL=4	Water additive used to control microbes.
Lead (Note 3)	NO	06/2020	2.45 (ND – 3.5)	ug/l	0	AL = 15 ug/l	Erosion of natural deposits and Corrosion of plumbing.
Copper (Note 2)	NO	06/2020	135 (35 -- 142)	ug/l	1300	AL= 1300 ug/l	Corrosion of household plumbing. Erosion of natural deposits.
Barium	NO	09/19/19 & 10/25/19	Average – 0.168 0.167- 0.168	mg/l	2	MCL = 2	Natural deposits, metal refineries, drilling waste.
Iron	NO	09/19/19	0.013	mg/l	N/A	MCL = 0.3	Naturally occurring.
Zinc	NO	09/19/19	0.037	mg/l	N/A	MCL = 5	Naturally occurring; Mining waste.
Sulfate	NO	09/19/19 & 10/25/19	Average – 18.6 16.1- 21.1	mg/l	N/A	MCL = 250	Naturally occurring.
Nickel	NO	09/19/19 & 10/25/19	Average – 0.002 0.001- 0.002	ug/l	N/A	No Designated Limits	Naturally occurring.
Manganese	NO	09/19/19	0.007	mg/l	N/A	MCL = 0.3	Naturally occurring.
Radioactive Contaminants							
Combined Radium 226/228	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	1.920 ND – 6.390 0.448 ND – 1.009 0.527 ND – 1.246 2.280 1.230– 3.958 22.265 7.280 – 45.100	pCi/l	0	MCL = 5 pCi/l (Note 4)	Erosion of natural deposits.
Gross alpha activity (including radium – 226 but excluding radon and uranium)	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	10.335 4.689 – 25.001 1.982 0.910 – 3.639 3.091 2.184 – 5.057 4.257 2.859 – 7.308 69.999 14.019- 141.351	pCi/l	0	MCL = 15 pCi/l (Note 4)	Erosion of natural deposits.

Gross Beta	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	8.400 6.130 – 13.700 4.500 2.300 – 5.960 7.448 4.810 – 10.300 7.840 5.520 – 12.100 33.625 10.900 – 63.300	pCi/l	0	MCL = 50 pCi/l (Note 4)	Decay of natural deposits, Man-made emissions.
Uranium	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	6.963 5.030 – 8.600 4.570 4.100– 5.520 7.968 7.610 – 8.500 10.375 5.900 – 15.600 5.478 5.300 – 5.610	ug/l	0	MCL = 30ug/l (Note 4)	Erosion of natural deposits.
Synthetic Organic Contaminants							
Perfluorooctanoic Acid (PFOA)	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	2.87 -- 4.18 2.83 – 5.20 4.86 – 6.73 9.09 – 11.40 (Note 5) 2.59 – 3.06	ng/L	N/A	MCL= 10 ng/L	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS)	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	1.34 –1.52 1.11 – 2.46 2.99 – 3.33 1.76 – 1.77 ND – 0.63	ng/L	N/A	MCL= 10 ng/L	Released into the environment from widespread use in commercial and industrial applications.
1,4 dioxane	NO	2020 Entry Point 2020 Well 1 2020 Well 2 2020 Well 3 2020 Well 4	ND ND ND ND ND	mg/L	N/A	MCL= 0.0010 mg/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Disinfection Byproducts							
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	NO	08/2020	8.70 – 39.00	ug/l	N/A	MCL = 80 ug/l	By-product of drinking water chlorination needed to kill harmful organisms. TTHM's are formed when source water contains large amounts of organic matter.
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)	NO	08/2020	ND – 12.00	ug/l	N/A	MCL = 60 ug/l	By-product of drinking water chlorination needed to kill harmful organisms.

ADDITIONAL LEAD AND COPPER INFORMATION:

Contaminant & Sample Date	Number of Samples Collected	Number of Exceedances	Range above Action Level	Site 1	Site 2	Site 3	Site 4	Site 5
LEAD (ug/L) June 2020	**5**	**0**	**N / A**	**<1.0**	**1.1**	**1.4**	**<1.0**	**3.5**
COPPER (ug/L) June 2020	**5**	**0**	**N / A**	**69**	**142**	**127**	**35**	**125**

Notes:

1--Those on severely to moderately restricted sodium diets should take note of sodium levels in their drinking water. Water containing more than 20 mg/l of sodium should not be used for drinking by those 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.

2--The level presented represents the 90th percentile of the 5 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 copper values detected at your water system. In this case, 5 samples were collected at your water system and the 90th percentile value was 135 ug/l. The action level for copper was not exceeded at any of the sites tested.

3--The level presented represents the 90th percentile of the 5 samples collected. The action level for lead was not exceeded at any of the sites tested. The 90th percentile for lead was 2.45 ug/l.

4--Radiological results show the range of quarterly results and annual average for each well and the entry point. MCL compliance is determined by the annual average at the Entry Point Only. The state considers 50 pCi/l to be the level of concern for beta particles.

5-- The PFOA sample result from well #3 exceeded the MCL. Well #3 has been taken out of service is not currently being used to supply water to the system.

We are required to present the following information on lead in drinking water:
If present, elevated levels of lead 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. Arbor Hills Water System 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 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

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.

Maximum Residual Disinfectant Level (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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

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 to one trillion parts of liquid (parts per trillion ppt).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2020, our system was in compliance with State drinking water operating and reporting requirements.

We are required to present the following information on lead in drinking water:
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DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immune-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. 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 (800-426-4791).

INFORMATION FOR NON-ENGLISH-SPEAKING RESIDENTS
Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?
Our system does NOT have an adequate amount of water to meet present and future demands. We must truck in water annually to meet demand in the summer months. There are several reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both 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 fire fighting 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. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.