

2022 DRINKING WATER QUALITY REPORT
 For the period January 1, 2021 to December 31, 2021

ASHBY ELEMENTARY SCHOOL
 PWS ID: 2012002
 911 MAIN ST
 ASHBY MA 01431

The drinking water system at the facility noted above is registered in the Commonwealth as a non-transient non-community (NTNC) public water system. It is an NTNC public water system because it owns and/or controls its source of water and supplies potable water to at least 15 service connections or regularly serves at least 25 of the same persons or more approximately four or more hours per day, four or more days per week, more than six months or 180 days per year. Examples of NTNCs include: schools, and workplaces providing water to its employees such as factories and office buildings.

NTNC systems must routinely test for coliform bacteria, 18 inorganics, 26 synthetic organic compounds, and 35 volatile organic compounds. MassDEP may also require or a NTNC system may elect to conduct additional testing as needed. Below is a list of contaminants found in the water during the reporting period.

If the facility was required to monitor for Lead and Copper, the results are listed in the Lead and Copper (LCR) section of this report. If the facility was required by the U.S. Environmental Protection Agency (USEPA) to monitor for unregulated contaminants under the Unregulated Contaminant Monitoring Rule (UCMR), the results are listed in the Unregulated Contaminant Monitoring Rule 4 (UCMR4) section of this report.

Please be aware that “all drinking water, including bottled water, may contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.”

For more information please contact the persons listed at the end of this report.

MONITORING RESULTS TABLE

CONTAMINANT	HIGHEST DETECT VALUE ¹	MCL ²	MCLG ³	VIOLATION ⁴ (YES or NO)		POSSIBLE SOURCES OF CONTAMINATION
				MCL	FAILURE TO MONITOR **	
ALKALINITY (CACO ₃), TOTAL	68			N	N	Natural deposits
ARSENIC (MG/L)	0.001	.01	0	N	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (MG/L)	0.024	2	2	N	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CALCIUM	49.6			N	N	Erosion of natural deposits
CHLORIDE (MG/L)	129	250 (SMCL)		N	N	Runoff and leaching from natural deposits; seawater influence
FLUORIDE (MG/L)	1	4	4.0	N	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
HARDNESS (CACO ₃), TOTAL	159			N	N	Naturally occurring process; Erosion of natural deposits
IRON (MG/L)	0.037	.3 (SMCL)		N	N	Natural and industrial sources as well as aging and corroding distribution systems and household pipes
MAGNESIUM	8.6			N	N	Erosion of natural deposits
PH	7.5			N	N	Runoff and leaching from natural deposits; seawater influence

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POTASSIUM	2.2			N	N	Erosion of natural deposits; Water treatment
SODIUM (MG/L)	49.5	20 (ORSG)		N	N	Naturally present in the environment; may also be due to salt runoff from deicing practices.
TOTAL COLIFORM	Present	0	0	N	N	Naturally Present in the environment
TOTAL DISSOLVED SOLIDS (MG/L)	378	500 (SMCL)		N	N	Runoff and leaching from natural deposits; seawater influence
TURBIDITY (NTU)	0.5	1		N	N	Soil runoff
ZINC (MG/L)	0.092	5 (SMCL)		N	N	Corrosion of household plumbing systems; erosion of natural deposits

¹ **Detect** – any levels found at or above the detection limits in the Massachusetts Drinking Water Regulations, 310 CMR 22.00.

² **Maximum Contaminant Level (MCL)** – the highest level of a contaminant that is allowed in drinking water.

Office of Research and Standards Guideline (ORSG) – MassDEP health-based guideline.

Secondary Maximum Contaminant Level (SMCL) – typically aesthetic standards that represent reasonable goals for drinking water quality. See 310 CMR 22.07D for situations that may warrant enforcement of these levels.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

³ **Maximum Contaminant Level Goal (MCLG)** – the level of a contaminant in drinking water below which there is no known or expected risk to health.

⁴ **For any violations**, health effects language for these contaminants is available from the owner/operator of this Public Water System upon request and can also be found in Attachments C and D of Appendix M of the *Guidelines and Policies for Public Water Systems* (see link below).

** If “Y”, one or more times during the reporting period this system did not monitor and/or report to the MassDEP as required.

“ We are required to monitor your drinking water for specific contaminants on a regular basis. Results of the regular monitoring are an indicator of whether or not our drinking water meets health standards. During the above noted reporting period we did not monitor or test and/or did not complete all monitoring or testing for contaminant(s) noted above and therefore cannot be sure of the quality of our drinking water during that time. “

The posting of this report meets the public notification Tier 3 requirements of 310 CMR 22.16(4).

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Lead and Copper (LCR)

Our source water is lead-free. However, lead can get into water from the service line to our facility and our interior plumbing.

Under MassDEP rules, public water systems are required to test for Lead and Copper semi-annually, annually, or triennially. For more information about how testing frequencies are determined refer to 310 CMR 22.06B. The requirement is that 90% of the samples must have lead levels below the Lead Action Level of 15ppb (part per billion). The following is the testing results from our most recent round of sampling.

For more information please contact the persons listed at the end of this report.

LEAD & COPPER RESULTS TABLE

CONTAMINANT	COMPLIANCE PERIOD	90% VALUE ¹	ACTION LEVEL ²	MCLG ³
COPPER (MG/L)	FROM: 1/1/2017 TO: 12/31/2019	0.039	1.3	1.3
LEAD (MG/L)	FROM: 1/1/2017 TO: 12/31/2019	0.003	0.015	0

¹ **90th Value** – Out of every 10 samples, 9 were at or below this level.

² **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

³ **Maximum Contaminant Level Goal (MCLG)** – the level of a contaminant in drinking water below which there is no known or expected risk to health.

For more information contact:

 Owner/Responsible Person

 Signature of Owner/Responsible Person

 Phone

 Certified Operator Name

 Signature of Certified Operator

 Phone

These results are on file with the Massachusetts Department of Environmental Protection Drinking Water Program (MassDEP/DWP). If you have any questions on the MADEP Drinking Water Program contact MassDEP at (617) 292-5770 or email program.director-dwp@mass.gov.

You can refer to Attachments C and D of Appendix M of the *Guidelines and Policies for Public Water Systems* (see link below) for more information on contaminants and potential health effects or you can call the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

Date This Was Posted: _____

Location of Posting: _____



Appendix M - *Guidelines and Policies for Public Water Systems*
<https://www.mass.gov/doc/consumer-confidence-reporting-requirements> (1.91 MB)

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Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a family of chemicals widely used in common consumer products such as food packaging, outdoor clothing, carpets, leather goods, ski and snowboard waxes, and more. PFAS can leach into groundwater or surface water from surface soils contaminated with PFAS. When ingested, some PFAS can build up in the body, and over time, these PFAS may increase to a level where health effects could occur.

The PFAS Maximum Contaminant Level (MCL) of 0.000020 milligrams per liter (mg/l) or 20 ppt for the sum of six PFAS compounds (PFOS, PFOA, PFHxS, PFNA, PFHpA, and PFDA) known as PFAS6 is not applicable to transient non-community (TNC) systems, but TNCs are required to comply with the special applicability requirements of 310 CMR 22.07G(2): *Every Supplier of Water operating a Transient, Non-Community Water System shall collect, analyze and report the results of one sample from each Sampling Point, or alternate sampling location required by the Department pursuant to 310 CMR 22.07G(4)(a) or (b), no later than September 30, 2022. All such monitoring shall be performed in compliance with the provisions addressing monitoring protocols, invalidation of PFAS samples, PFAS analytical requirements, PFAS reporting requirements, PFAS6 minimum reporting levels and electronic filing requirements set forth in 310 CMR 22.07G(4), (9), (12), (13), (16), (17).*

These results are on file with the Massachusetts Department of Environmental Protection Drinking Water Program (MassDEP/DWP). For more information please contact the persons listed on the first page.

REGULATED PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) RESULTS TABLE

CONTAMINANT	DETECT RANGE ¹	AVERAGE DETECT ²	POSSIBLE SOURCES OF CONTAMINATION	HEALTH EFFECTS
PFAS6 *	ND	ND	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.	Some people who drink water containing these PFAS at elevated levels may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS may also elevate the risk of certain cancers.

* Sum of PERFLUORODECANOIC ACID (PFDA), PERFLUOROHEPTANOIC ACID (PFHpA), PERFLUOROHEXANESULFONIC ACID (PFHxS), PERFLUORONONANOIC ACID (PFNA), PERFLUOROOCTANESULFONIC ACID (PFOS), PERFLUOROOCTANOIC ACID (PFOA). PFAS6 was regulated on October 2, 2020.

¹ The lowest and highest detected values. A single value means only one sample was taken.

² The average detected amount of PFAS6. This is calculated by adding all detected amounts and dividing by the number of samples taken.

UNREGULATED PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) RESULTS TABLE

CONTAMINANT (CASRN)	DETECT RANGE ¹	AVERAGE DETECT ²	ORSG ³	POSSIBLE SOURCE OF CONTAMINATION	HEALTH EFFECTS
11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID-11CL-PF3OUDS (763051-92-9)	ND	ND	†		
4,8-DIOXA-3H-PERFLUORONONANOIC ACID - ADONA (919005-14-4)	ND	ND	†		
9-CHLOROHEXADECAFLUORO-3-OXANONE-1-SULFONIC ACID-9CL-PF3ONS (756426-58-1)	ND	ND	†		
HEXAFLUOROPROPYLENE OXIDE DIMER ACID - HFPO-DA (13252-13-6)	ND	ND	†		
N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID - NETFOSAA (2991-50-6)	ND	ND	†		
N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID - NMEFOSAA (2355-31-9)	ND	ND	†		

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PERFLUOROBUTANESULFONIC ACID- PFBS (375-73-5)	ND	ND	†		
PERFLUORODODECANOIC ACID - PFDOA (307-55-1)	ND	ND	†		
PERFLUOROHEXANOIC ACID - PFHXA (307-24-4)	ND	ND	†		
PERFLUOROTETRADECANOIC ACID - PFTA (376-06-7)	ND	ND	†		
PERFLUOROTRIDECANOIC ACID - PFTRDA (72629-94-8)	ND	ND	†		
PERFLUOROUNDECANOIC ACID - PFUNA (2058-94-8)	ND	ND	†		

* PFDA, PFHpA, PFHxS, PFNA, PFOS, PFNA were unregulated chemicals from January 1 – October 1, 2020 and had an ORSG of 20 ppt. On October 2, 2020 these chemicals became regulated with an MCL of 20 ppt. Any detects found after that time are reported in the regulated table above as PFAS6.

‡ Sum of PERFLUORODECANOIC ACID (**PFDA**), PERFLUOROHEPTANOIC ACID (**PFHpA**), PERFLUOROHEXANESULFONIC ACID (**PFHxS**), PERFLUORONONANOIC ACID (**PFNA**), PERFLUOROOCETANESULFONIC ACID (**PFOS**), PERFLUOROOCETANOIC ACID (**PFOA**). PFAS6 was regulated on October 2, 2020.

† There is no ORS Guideline for this compound.

¹ The lowest and highest detected values. A single value means only one sample was taken.

² The average of all sample results between January 1 to October 1, 2020. This is calculated by adding all detected amounts and dividing by the number of samples taken.

³ Office of Research and Standards Guideline (ORSG) - MassDEP health-based guideline.



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