



## Attleboro Water Department

PWSID # 4016000

# 2020 Water Quality Report

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## Dear Resident,

The City's water system (PWS 4016000) includes two water treatment facilities, three water storage tanks, over 2000 fire hydrants, and more than 220 miles of water main. To insure reliability, the City's distribution system is interconnected with Seekonk, North Attleboro, and Norton. In the unlikely event of an emergency, the City could open an interconnection to maintain system operation.

The two treatment facilities are supplied with water from Manchester Reservoir (4016000-03S), Orr's Pond (4016000-04S), Luther Pond, Hoppin Hill Reservoir, Lake Mirimichi, and Blake's Pond (Wading River 4016000-05S). The watersheds for these surface supplies extend into 5 surrounding communities. Protection of these sources is a priority of the Water Department. The Massachusetts Department of Environmental Protection prepared a Source Water Assessment and Protection (SWAP) report in 2003. A copy of this report is available at the Water Department. This report surveyed the land use in the watershed and identified sources of potential contamination. Our watersheds contain a mix of land use. 28% of the Manchester/Orr's Pond watershed is protected open space and 38% of the Wading River watershed is protected. High risk items identified are the transportation corridors, transmission lines, and a capped solids waste facility. The City has a written Emergency Response Plan which would immediately be implemented in the event of a contamination event.

The Attleboro Water Department is part of the City of Attleboro government. Our legislative branch is the Attleboro City Council, which holds hearings on budget and financial matters and considers ordinances which create or amend local laws. Some of these matters affect the operation of the Attleboro Water Department. The City Council meets every other Tuesday at 7 PM in the City Hall, 77 Park Street, first floor council chambers. The meetings are televised live on Channel 98, the local government access cable channel.

If you have any questions or concerns about your water, please contact Kourtney Wunschel, Superintendent of Water.

## Recent Changes and On-Going Projects

The residential water meter replacement program is ongoing. The Department will upgrade 5/8" residential water meters at no charge to the user. Residents will be notified when replacement is scheduled.

The water mains on portions of Franklin Street and Roy Avenue were replaced in 2020.

The main replacement on Steere Street will be completed in 2021, as well as the replacements of the mains on Deanville Road and on Read Street from County Street to West Street.

Construction of an interconnection with the City of Pawtucket is expected to begin in 2021. This connection will be capable of supplying the residents of Attleboro with water in emergencies.

The cleaning and lining of the water mains on Park Place and Lonsdale Avenue are expected to take place in 2021, pending City Council approval of funding.

## Vulnerability

Some people may be more vulnerable to contaminants 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 about drinking water from their healthcare providers. EPA/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 (1-800-426-4791).

## Substances Found in water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, reservoirs, streams and wells. As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and radioactive material, and can be polluted by animals or human activity. Contaminants that might be expected in source water include: microbial contaminants, such as

viruses and bacteria; inorganic contaminants, such as metals and salts; pesticides and herbicides; organic chemicals from industrial or petroleum use; and radioactive materials. To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

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 EPA's Safe Drinking Water Hotline (1-800-426-4791). In order to ensure that tap water is safe to drink, the Massachusetts DEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Water Conservation Tips

- Use water saving devices in your home plumbing projects.
- Check for home for leaky faucets and toilets and repair as soon as possible.
- Pay attention to weather forecasts to avoid outdoor watering or pool filling when rain is predicted.

## What is a Cross Connection and What Can I do About it?

A cross connection is a connection between a drinking water pipe and a contaminated source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the City) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow prevention device can prevent this problem. Also, since 1994, there has been a check valve installed at the water meter at each service connection for new construction to help prevent against this type of situation.

The Attleboro Water Department recommends the installation of backflow prevention devices, such as low cost hose bib vacuum breakers, for all inside and outside hose connections. You can purchase these at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in the City. For additional information on cross connections and on the status of the City's cross connection program, please contact the Water Department.

**Water Quality Summary** Listed below are the contaminants detected in Attleboro's drinking water in 2020.

### INORGANIC CHEMICALS

SUBSTANCE (CONTAMINANT)	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	HIGHEST LEVEL ALLOWED (EPA'S MCL'S)	IDEAL GOALS (EPA'S MCLG'S)	SOURCES OF CONTAMINANT
Fluoride (ppm)	0.9	0.4- 0.9	4	N/A	Water additive which promotes strong teeth; erosion of natural deposits, discharge from fertilizer and aluminum factories.
Perchlorate (ppb)	0.29	0.13- 0.29	2.0	N/A	Rocket propellants, fireworks, munitions, flares, blasting agents
Nitrate (ppm)	0.377	0.0420- 0.377	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewerage; Erosion of natural deposits
Barium (ppm)	0.040	0.024- 0.040	2	2	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Sodium (ppm)	81	44- 81	NR	20 (SMCL)	Naturally present in the environment, runoff from road salt

**Information about sodium in your drinking water:** Possible sources: Natural sources; run off from road salt; by-product of treatment process. Health effects: Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled. The Department of Environmental Protection Office of Research and Standards (ORS) guideline for sodium is 20 mg/L.

## MICROBIOLOGY/TURBIDITY

Total Coliform	0 (<1%)	Present/Absent	Less than 5%	Naturally present in the environment
<b>TURBIDITY COMPLIANCE</b>	<b>MCL</b>	<b>LOWEST MONTHLY % OF SAMPLES BELOW 0.3 NTU</b>	<b>HIGHEST LEVEL DETECTED</b>	<b>VIOLATION?</b>
Wading River Daily	1.0 NTU	N/A	0.26	No
Wading River Monthly	At least 95% below 0.3 NTU	100%	N/A	No
West Street Daily	1.0 NTU	N/A	0.29	No
West Street Monthly	At least 95% below 0.3 NTU	100%	N/A	No

Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of a filtration system. A possible source of turbidity is soil runoff.

## DISINFECTANT RESIDUAL

RESIDUAL	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	HIGHEST LEVEL ALLOWED (EPA'S MCL'S)	SOURCE OF RESIDUAL
Chlorine (ppm) Wading River Station	1.22	0.69- 1.22	4	Water additive to control microbes
Chlorine (ppm) West Street Plant	1.29	0.79- 1.29	4	Water additive to control microbes
Bromate (ppm)	0.000	0.000	0.010	By-product of drinking water disinfection

## ORGANIC CHEMICALS

COMPOUND GROUP	HIGHEST LEVEL DETECTED	RANGE OF DETECTION	HIGHEST LEVEL ALLOWED (EPA'S MCL'S)	SOURCE
Total Trihalomethanes (ppb)	140	25- 140	80 (RAA)	By-product of drinking water chlorination
Haloacetic Acids (ppb)	52	3.4- 52	60 (RAA)	By-product of drinking water chlorination

## RADIONUCLIDE REPORT

SUBSTANCE	RESULT	MCL	DATE ANALYZED	SOURCE OF SUBSTANCE
Combined Radium	0.71 +/- 0.83	5 pCi/L	7/2/2014	Erosion of Natural Deposits
Gross Alpha Activity	4.2 +/- 0.9 pCi/L	15 pCi/L	7/2/2014	Erosion of Natural Deposits

## LEAD AND COPPER

LEAD AND COPPER	DATE COLLECTED	90 <sup>th</sup> PERCENTILE	ACTION LEVEL (AL)	MCLG	# SITES SAMPLED	#SITES ABOVE AL	EXCEEDS AL?	SOURCE OF SUBSTANCE
Lead (ppb)	7/28/18-9/9/18	3	15	0	30	1	No	Corrosion of household plumbing
Copper (ppm)	7/28/18-9/9/18	0.15	1.3	1.3	30	0	No	Corrosion of household plumbing

Action Level- the concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

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. Attleboro Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been setting 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 or at <http://www.epa.gov/safewater/lead>.

## SECONDARY CONTAMINANTS

SUBSTANCE	DATE COLLECTED	RESULT OR RANGE DETECTED	AVERAGE DETECTED	SMCL (ppb)	HEALTH ADVISORY (ppb)	POSSIBLE SOURCES
Manganese (ppm)	7/5/20	0-0.325	0.086	50	300	Erosion of natural deposits

**Information about manganese in your drinking water:** EPA has established a lifetime health advisory (HA) value of 0.3 ppm for manganese to protect against concerns of potential neurological effects, and a 1-day and 10-day HA of 1 ppm for acute exposure. However, it is advised that for infants younger than 6 months, the lifetime HA of 0.3 ppm be used even for an acute exposure of 10 days.

## UNREGULATED CONTAMINANTS

CONTAMINANT NAME	REPORTED LEVEL	RANGE LOW	RANGE HIGH
Monochloroacetic Acid (ppb)	<2.00	0	<2.00
Monobromoacetic Acid (ppb)	0.387	0	0.387
Dichloroacetic Acid (ppb)	15.8	1.44	15.8
Trichloroacetic Acid (ppb)	48.3	1.98	48.3
Bromochloroacetic Acid (ppb)	3.46	0.687	3.46
Dibromoacetic Acid (ppb)	0.630	0	0.630
Bromodichloroacetic Acid (ppb)	10.3	0.952	10.3
Chlorodibromoacetic Acid (ppb)	1.46	0.365	1.46
Tribromoacetic Acid (ppb)	<2.00	0	<2.00

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

## PER- AND POLYFLUOROALKYLATED SUBSTANCES (PFAS)

REGULATED CONTAMINANT	DATES COLLECTED	DETECTED RANGE	QUARTERLY AVERAGE	MCL	VIOLATION?	POSSIBLE SOURCES	HEALTH EFFECTS
PFAS6 (ppt)	9/24/2020, 10/8/2020	7-18	NA	20	No	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 in excess of the MCL 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.

UNREGULATED CONTAMINANT (CASRN)	DATES COLLECTED	DETECTED RANGE	AVERAGE	ORSG	POSSIBLE SOURCES	HEALTH EFFECTS
Perfluoroheptanoic Acid (PFHpA) (375-85-9) (ppt)	9/24/2020, 10/8/2020	0.814- 1.32	1.111	NA*	-	-
Perfluorooctanoic Acid (PFOA) (335-67-1) (ppt)	9/24/2020, 10/8/2020	2.24- 3.97	2.95	NA*	-	-

\*There is no ORS guideline for this compound.

Our system, out of an abundance of caution and concern about PFAS, sampled for PFAS compounds during 2020. PFAS are unregulated contaminants for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted. However, US EPA has set a Health Advisory of 70 ppt for PFOS and PFOA and MassDEP's Office of Research and Standards has set an ORSG of 20 ppt for PFOS, PFOA, PFNA, PFHxS and PFHpA individually or as a group.

Our system's reported PFAS results are less than the 70 ppt US EPA HA and MassDEP's ORSG. If you are a sensitive consumer (pregnant women, nursing mothers, and infants) you can minimize your exposure by using bottled water that has been tested for PFAS for drinking, for making infant formula and cooking foods that absorb water. Please consult your health practitioner if you have any health related questions. For a consumer factsheet on PFAS see <https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers/download>

## DEFINITIONS

**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 Contamination Level (MCL)** - The highest level of a contaminant level that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**ND** - Substance not detected in the sample.

**ppm** - One part per million; the equivalent of 1 ¢ in \$10,000.

**ppb** - One part per billion; the equivalent of 1 ¢ in \$10,000,000.

**ppt** - One part per trillion; the equivalent of 1 ¢ in \$10,000,000,000.

**pCi/L** - Picocuries per liter is a measure of the radioactivity in water.

**NR** - Not regulated

**mrem/yr** - Millirems per year is a measure of the radiation adsorbed by the water.

**AL** - Action Level

**NTU** - Nephelometric Turbidity Units: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration process.

**TT** - Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water

**NE** - Not Established

**Coliform:** Coliform are bacteria that are naturally present the environment and are used to indicate that other potentially- harmful, bacteria may be present.

**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 (ex. Chlorine, chloramines, chlorine dioxide).

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk of health.

MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Secondary Maximum Contaminant Level (SMCL):** These standards are developed to protect the aesthetic qualities of drinking water and are not health based.