Attleboro Water Department

Facility Address:
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Attleboro, MA 02703

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2014 Water Quality Report

Water Department
1296 West Street
Attleboro, MA 02703

Dear Resident,

The City's water system (PWS 4016000) includes two water treatment facilities, three water storage tanks, 1900 fire hydrants, and 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 Blakes 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 the Paul Kennedy, Acting 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 Wading River Treatment Plant was taken out of service during 2014 in order to rehabilitate the filter beds at the plant. This project will help ensure clean and healthy drinking water for Attleboro residents for years to come.

The Water Department has upgraded the computer control system at the Russell F. Tennant Water Treatment Facility and Wading River Treatment Plant. This upgrade will ensure that the treatment facilities continue to provide high quality, aesthetically pleasing drinking water in the quantities required by the City's residents and businesses.

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

- When doing dishes or laundry, run only full loads.
- Native garden plants need less watering than plants that are not indigenous to the region.
- Turn water off when washing hands or brushing teeth.
- Encourage friends and neighbors to conserve water too!

Water Quality Summary *Listed below are the contaminants detected in Attleboro's drinking water in 2014.*

INORGANIC CHEMICALS

Substance (Contaminant)	Highest Level Detected	Range of Detection	Highest Level Allowed (EPA's MCL's)	Ideal Goals (EPA's MCLGs)	Sources of Contaminant
Fluoride (ppm)	1.2	0-1.2	4		Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Perchlorate (ppb)	0.50	0.06-0.50	2.0	NA	Rocket propellants, fireworks, munitions, flares, blasting agents
Nitrate (ppm)	0.25	0.16-0.25	10	10	Runoff from fertilizer use;Leaching from septic tanks, sewerage; Erosion of natural depostis
Nitrite (ppm)	0.009	0-0.009	1	1	Runoff from fertilizer use;Leaching from septic tanks, sewerage; Erosion of natural depostis
Barium (ppm)	0.027	0.027-0.027	2	2	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Sodium (ppm)	110	45.4-110	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.

Unregulated or Secondary Contaminant	Date Collected	Result or Range Detected	Average Detected	SMCL (ppb)	Health Advisory	Possible Sources
Manganese (ppb)	1/2/2014	0-170	70	50	300	Erosion of natural deposits

MICROBIOLOGY/TURBIDITY

Total Coliform	1 (2%)	Present/Absent	Less than 5%	Naturally present in the environment.

Turbidity Compliance	MCL	Lowest Monthly % of Samples below 0.30 NTU	Highest Level Detected	Violation?
Wading River Daily	1.0 NTU	NA	1.6	No**
Wading River Monthly	At least 95% below 0.3 NTU	96%	NA	No
West Street Daily	1.0 NTU	NA	0.8	No
West Street Monthly	At least 95% below 0.3 NTU	100%	NA	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.
** This sample result was determined to be an error from an outside contract laboratory. When the sample was analyzed in duplicate on two separate pieces of instrumentation at the Treatment Plant, the result was <0.1 NTU.

DISINFECTANT RESIDUAL

Chlorine (ppm) Wading River Station	1.49	0.54-1.49	4 ppm	Water additive to control microbes
Chlorine (ppm) R.F.T. Water Treatment Plant	2.03	0.54-2.03	4 ppm	Water additive to control microbes
Bromate (ppm)	0	0	0.010 ppm	By-product of drinking water disinfection

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.
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.
NR – Not regulated
AL – Action Level
ND – Substance not detected in the sample.
pCi/L – Picocuries per liter is a measure of the radioactivity in water.
mrem/yr – Millirems per year is a measure of the radiation adsorbed by the water.
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 of 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.

ORGANIC CHEMICALS

Total (ppb) Trihalomethanes	44.7	29.7-71.6	80 (RAA)	By-Product of drinking water chlorination
Haloacetic Acids (ppb)	17.1	4.1-32.0	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– Results from July 2012

Lead and Copper	Date Collected	90th Percentile	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites Above AL	Exceeds AL?	Source of Substance
Lead (ppb)[2]	7/17/12-7/24/12	4	15	0	31	1	No	Corrosion of household plumbing
Copper (ppm)	7/17/12-7/24/12	0.14	1.3	1.3	31	0	No	Corrosion of household plumbing

[1]**Action Level** – the concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

[2]"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 your 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."

UNREGULATED CONTAMINANTS

Contaminant Name	Reported Level	Range Low	Range High
Acetone (ppb)	2.1	0	10.6
1,4-Dioxane (ppb)	0.03	0	0.17
Hexavalent Chromium (ppb)	0.035	0	0.072
Chlorate (ppb)	275	140	390
Strontium (ppb)	79	59	94
Vanadium (ppb)	0.02	0	0.23

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.

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.