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DEPARTMENT OF WATER & WASTEWATER
77 PARK STREET
ATTLEBORO, MA 02703

Attleboro Water Division

PWD # 4016000


TO: ATTLEBORO WATER DIVISION
ATTN: SUPERVISOR OF WASTEWATER TREATMENT PLANT
1296 WEST STREET
ATTLEBORO, MA 02703

FROM: RUSSELL E. TENNANT
CITY OF ATTLEBORO
WATER TREATMENT FACILITY

DATE: 12/15/01

SUBJECT: 2002 WATER QUALITY REPORT

1296 West Street
Attleboro, MA 02703
Tel: 508-222-0019



2002 Water Quality Report

Department of Water & Wastewater
77 Park Street
Attleboro, MA 02703

ATTLEBORO'S WATER

The City's water system includes two water treatment facilities, three water storage tanks, 1,900 fire hydrants and 215 miles of water main. The two treatment facilities are supplied water from Manchester Reservoir, Orr's Pond, Luther Pond, Hoppin Hill Reservoir, Lake Mirimichi and Blakes Pond.

Most people are unaware of the fact that the City is limited by State permit as to the quantity of water that can be drawn annually from our supplies. The permit even limits the amount of water that can be taken at any one time. For example, the maximum rate that can be taken from the Russell F. Tennant Water Treatment Plant is 8 million gallons per day. Additional flow can only be taken with Department of Environmental Protection approval. Under the current permit, the City is authorized to draw a total 2.1 billion gallons per year. This sounds like a lot of water but, typically, the Department treats and pumps 1.8 to 1.9 billion gallons of water each year. This only allows an additional 300 million gallons to be pumped. On average there are 200 additional new water service connections to the municipal water system annually which adds to additional consumption. It should also be noted that the City is subject to fines if over pumping occurs. It is therefore extremely important that each one of us do as much as possible to conserve and not waste water.

Many residents now have installed irrigation systems. The sprinkler heads are designed to use only small quantities of water. However, they only work to conserve water when used properly. Water sprinkling should take place early in the morning or after the sun begins to set. This way the water will not evaporate before it reaches the roots of the grass. The rule of thumb is to water 1 inch per week. You do not need to water the lawn daily, odd/even is the best method. This should be based on your house number. With an odd number, water on odd days of the calendar etc.. If you have a system that can detect rainfall, do not override it as this only wastes water. If you do not have one, check the cost of having one installed.

Water Conservation Tips

Toilet Leaks

A leaky toilet can waste 60 gallons of water per day, 22,000 gallons per year. Put a dye tablet or a few drops of food coloring in the toilet tank. If color appears in the bowl within an hour, your toilet is leaking.

Faucet Leaks

Some faucets drip noisily and others ooze silently at the base; some leaks are not even big enough to register on your meter. But any leak, no matter how small, is a big waste of water.

A slow steady drip can drain 75 gallons per week, a fast drip up to 200 gallons per week. A steady stream will waste as much as 1,000 gallons per week.

- A garden hose without a nozzle can waste up to 10 gallons per minute.
- A washing machine can use up to 50 gallons of water per load; make sure you only wash full loads.

Pool Filling:

Swimming pools should be filled early in the season rather than at the end of May. This helps reduce the demand on the water treatment facility and the water distribution system. This is also a good time to apply odd/even days if possible

THE ATTLEBORO DEPARTMENT OF WATER & WASTEWATER

is part of the City of Attleboro government. Our legislative branch is the Attleboro City Council, which holds hearings on budget and financial matters, considers ordinances which create or amend local laws. Some of these matters affect the operation of the Attleboro Water Division. 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.

PORTUGUESE IMPORTANTANTE

O relatorio contem informacoes importantes sobre a qualidade da aqua da comunidade. Traduza-o ou peca ajuda de uma pessoa amiga para ajuda-la entender melhor.

WATER QUALITY SUMMARY

Listed below are the contaminants detected in Attleboro's drinking water in 2002. All are below allowed levels. Not listed are over 100 other contaminants for which we tested but did not detect. In 2002, Attleboro collected over 24,816 samples for water analysis.

SYNTHETIC ORGANIC COMPOUNDS

Substance	Highest Detected	Range	MCL	Source of Contaminant	Date Analyzed
Di - (2- ethylhexyl) phthalate	.002 ppm	ND - .002 ppm	.006	Discharge from rubber and chemical plants.	Aug. 1, 2001

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)	1.3	.90 - 1.3	4 ppm		Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	0.60	0.12 - 0.60	10	10	Fertilizer runoff, leaching from septic tanks and erosion of natural deposits.
Sodium (ppm)	68.0	44 - 68.0	NR	NR	Naturally present in the environment
Barium (ppm)	.028		2.0 ppm	2.0 ppm	Erosion of natural deposits.

ORGANIC CHEMICALS

Total (ppb) Trihalomethanes	40	ND - 40	80	0	By-Product of drinking water chlorination
Haloacetic Acids (ppb)	26	ND - 26	60	0	By-product of drinking water chlorination

MICROBIOLOGY

Total Coliform	.032%		Less than 5%	0	Naturally present in the environment.
Turbidity (NTU) Wading River Station	0.49	0.06 - 0.49	TT .30	0	Soil Runoff
Turbidity (NTU) R. F. T. Water Treatment Plant	0.13	0.05 - 0.13	TT.30	0	Soil runoff

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

NTU - Nephelometric Turbidity Units; a measure of the suspended material in water.

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.

TT - Treatment Technique

NE - Not Established

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

Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of filtration.

RADIONUCLIDE REPORT

SUBSTANCE	RESULT	MCL	DATE ANALYZED	SOURCE OF SUBSTANCE
Gross Alpha Activity	0.3 (+- 1.7)	15 pCi/L	11/29/01	Natural Deposits

The Wading River Station, during the month of August, has a Turbidity Treatment Technique Violation. The facility exceeded the TT standard of (0.30 NTU) but it did not exceed the (MCL of 1.0 NTU). If disinfection is not maintained, turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

The Wading River Station maintained an effective chlorine dose that maintained the disinfection properties of the water system. None of the testing showed disease-causing organisms in the drinking water. The station was taken out of service August 23, 2002. The filter beds were cleaned and the two (2) wells serving the beds were chemically treated and cleaned. The filter bed cleaning normally takes place in the fall when demand for water is at its lowest.

Please note: Lead and copper will be resampled in June 2003. Radionuclides and Synthetic Organic Compounds will be sampled in 2003.

Lead (ppb)	Sample Results	Action Level ¹	0	Corrosion of household plumbing
	2.0	15		
Copper (ppm)	0.12	1.3	1.3	Corrosion of household plumbing

* Lead is reported as the 90% in ppb, which is below the action level of the EPA and State.

¹ Action Level – the concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow. Note: Lead and copper samples were last collected in June 2001.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. If you are concerned about elevated lead levels in your homes water, you may wish to have your water tested and to flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rain fall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

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 untreated water include: biological 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 the potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

VULNERABILITY

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-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 (800-426-4791)