



## Town of Bedford DEPARTMENT OF PUBLIC WORKS

### TOWN'S WATER SUPPLY

The Town of Bedford supplied the residents with 519,805,789 gallons of potable water this year. Eighty-seven percent came from the MWRA while thirteen percent came from local sources at the Shawsheen Wellfield. During the break in the MWRA transmission line in May of 2010, we supplied the entire town from local wells and purchased water from Burlington (Purchased from Burlington: 4,011,309 gallons). Bedford has three wells and 82.5 miles of distribution pipe in service.

### WATER DEPARTMENT OPERATIONS

Bedford's well water is treated using (1) sodium hydroxide to raise the pH for corrosion control (2) sodium fluoride for dental hygiene and (3) sodium hypochlorite, a chlorine product used to disinfect. Both the MWRA water and well water are mixed together and distributed to the community. A number of physical enhancements were mandated by the state both at the treatment facility and distribution system. Improvements in chemical storage, continuous water monitoring for pH and chlorine residual and upgrades to our intermunicipal connections and security features were all part of the mandated program.

### SOURCE WATER ASSESSMENT

The DEP conducted a sourcewater assessment program (SWAP) in 2004 to assess the susceptibility of the wellfield to contamination. DEP assigned a value of High susceptibility to the only 3 wells we have in service, i.e. Shawsheen wells #2, #4 and #5. You can access the website at SWAP Report, Bedford. The Town is required to monitor the ground water on a quarterly basis to determine if any pollutants of concern are impacting water quality. After repeated tests of the groundwater, we have always been given a clean bill of health. Should you wish to go to the SWAP program you may google Source Water Protection-Bedford.

cess the website at SWAP Report, Bedford. The Town is required to monitor the ground water on a quarterly basis to determine if any pollutants of concern are impacting water quality. After repeated tests of the groundwater, we have always been given a clean bill of health. Should you wish to go to the SWAP program you may google Source Water Protection-Bedford.

### WATER ANALYSIS

The Town and the MWRA analyze water on a regular basis to make sure we meet all state and federal standards. In 2010 the Town and MWRA tested over 110 substances multiple times during the year. During the year we experienced three NONs (notice of non-compliance) for bacteria related issues. At no time were *E. coli* bacteria found in the system. The NONs were issued for site specific situations and did not involve the overall distribution system.

### NONCOMPLIANCE

A noncompliance notice was issued by MassDEP to the Town in April 2011 for submitting testing data late to them. Unfortunately, our contracted lab was late in analyzing our mandated quarterly samples. In no way did this impact water quality to our customers. The Town followed up with new samples two weeks after the due date.

**Meetings:** If you would like to attend a meeting or find out more about the Town's water supply, please call (781) 275-7605 or visit our website.

**KEY:** MCL-Maximum Contaminant Level MCLG-Maximum Contaminant Level Goal ppm-Parts per million ppb-Parts per billion AL-Action Level

	Units	MCL (Highest Level Allowed)	Highest Level Found	MCLG (Ideal Goals)	Violation	How it gets in the water
Perchlorate <sup>1</sup>	ppb	2.0	<1.0	n/a	No	Rocket fuel additive
Volatile Organics	ppb	Dichloromethane 5.0	0.6 <sup>7</sup>	n/a	No	Careless disposal to ground
Fluoride <sup>2</sup>	ppm	1.2	1.48	0.9-1.2	No	Water additive which promotes strong teeth
Nitrate	ppm	10	0.55	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes	ppb	80 <sup>3</sup>	17.1 <sup>4</sup>	0	No	Byproducts of drinking water disinfection
		Range of detection 2-87 <sup>5</sup>				
Haloacetic Acids	ppb	60 <sup>3</sup>	14.5 <sup>4</sup>	0	No	Byproducts of drinking water disinfection
		Range of detection 7-40 <sup>5</sup>				
Lead	ppb	AL=15 <sup>6</sup>	3 <i>1 of 30 sites over</i>	0	No	Corrosion of household plumbing systems
Copper	ppm	AL=1.3 <sup>6</sup>	0.14	0	No	Corrosion of household plumbing systems

TT=Treatment Technique: <sup>1</sup>Tested in 3<sup>rd</sup> quarter only as required. <sup>2</sup> Both the MWRA and Town add fluoride to reduce cavities. <sup>3</sup> Highest level allowed (MCL) for this substance is based on the average of four quarterly samples. <sup>4</sup> Highest detected level is based on average of four quarterly samples as required by regulation. <sup>5</sup> Highest value in range is based on individual samples, rather than averages. <sup>6</sup> For lead and copper, the Action Level (AL) and the highest level found are based on the 90th percentile of the samples. <sup>7</sup> Came in well below MCL and then N/D.