



Town of Wakefield DEPARTMENT OF PUBLIC WORKS

The Town of Wakefield uses an average of 2.7 million gallons of water a day. About 85% of this water is supplied by the MWRA through two connections. The remaining 15% is supplied by Wakefield from the Broadway Treatment and Pumping Facility utilizing the high quality source water of Crystal Lake. The Department of Environmental Protection (DEP) limits the amount of water the Town can take from Crystal Lake to a maximum of 580,000 gallons per day. Therefore, we use the Broadway Facility to supplement the MWRA supply and to aid in times of high demand, such as in the summer or fire fighting situations. The Broadway Facility can also supply 100% of the Town's water in the event of an emergency, such as interruptions in the MWRA supply. This dependability makes the Broadway Facility an invaluable part of Wakefield's water system.

WATER DEPARTMENT STAFF AND OPERATIONS

The Wakefield Water Department maintains and operates the Broadway Treatment Facility, approximately 110 miles of water main, 985 fire hydrants, the Linden Street water booster station, the Harts Hill standpipe, pressure reducing valves, blow-off valves, and multiple gate and service valves. We maintain the system including leak detection, repairs to main breaks, water main replacement, replacing older water meters, water main flushing, replacing hydrants, as well as responding to the needs and concerns of our residents. We conduct a thorough water sampling and testing program meeting all state and federal requirements. We also maintain an active Cross Connection Control Program, continuously inspecting facilities and testing devices to protect the water system from contamination. During 2010, the Town's Harts Hill Standpipe was rehabilitated and painted and an improvements design was completed that will address two areas in town with low pressures at peak times. These improvements, including booster pumping facilities, will be constructed in 2011.

SOURCE WATER ASSESSMENT

The DEP conducted a Source Water Assessment Program (SWAP) in 2004 to assess the susceptibility of the Crystal Lake supply to contamination. DEP assigned a susceptibility ranking of high to Crystal Lake. The Town provides complete treatment of the Crystal Lake supply that meets or exceeds all drinking water standards. We also conduct extensive monitoring as described below. The complete SWAP report is available online at <http://www.mass.gov/dep/water/drinking/3305000.pdf> or at the Department of Public Works.

WATER ANALYSIS

The Town of Wakefield and the MWRA analyze water samples regularly to ensure we meet all standards. In 2009, we tested for more than 100 substances. We only detected the 7 regulated contaminants shown below and found all of these to be below all federal and state standards. Table 1 shows the amount (detected level) of each contaminant. Not listed are the more than 100 regulated substances that were not detected in our water last year. The Town of Wakefield has successfully maintained lead and copper levels well below the EPA requirements. If you have any questions or concerns about lead in your drinking water and would like to have it tested, please contact the Department of Public Works.

Richard F. Stinson, Director of Public Works

For any additional information, including meetings, please contact:
Steven Fitzpatrick, Supervisor – Water/Sewer
Department of Public Works, Town Hall
1 Lafayette Street, Wakefield,
Massachusetts 01880
Tel. (781) 246-6301
Fax (781) 246-6266

	Units	MCL (Highest Level Allowed)	Highest Level Found	MCLG (Ideal Goals)	Violation	How it gets in the water
Turbidity ¹	NTU	TT=5 NTU	0.78	n/a	NO	Soil runoff
		TT=% of samples <1.0 NTU	100%			
Fluoride ²	ppm	4	1.26	4	NO	Water additive which promotes strong teeth
Nitrate	ppm	10	0.43	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes	ppb	80 ³	43 ⁴	0	NO	Byproducts of drinking water disinfection
		range of detection 5-87 ⁵				
Haloacetic Acids	ppb	60 ³	27 ⁴	0	NO	Byproducts of drinking water disinfection
		range of detection 2-41 ⁵				
Combined Radium 226 and 228	pCi/L	5	0.0±0.5 ⁶	0	NO	Erosion of natural deposits
Lead	ppb	AL=15 ⁷	4 ⁷	0	NO	Corrosion of household plumbing systems
		range of detection nd-113 ⁵				

TT = Treatment Technique: ¹ Turbidity is a measure of treatment performance and is regulated as a treatment technique. In Wakefield, 100% of samples met the treatment technique requirement. ² Both the MWRA and Town add fluoride to reduce cavities. ³ Highest level allowed (MCL) for this substance is based on the average of four quarterly samples. ⁴ Highest detected level is based on average of four quarterly samples as required by regulation. ⁵ Highest value in range is based on individual samples, rather than averages. ⁶ Most recent radium results were obtained in 2006. ⁷ For lead, the Action Level (AL) and the highest level found are based on the 90th percentile of the samples.