



Town of Wakefield DEPARTMENT OF PUBLIC WORKS

The Town of Wakefield uses an average of 1.73 million gallons of water a day. About 80% is supplied by the MWRA through two connections. The remaining 20% 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 1105 miles of water mains, 950 fire hydrants, the Linden Street water booster station, the Harts Hill standpipe, pressure reducing 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, and 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 2012, two new booster pumping stations at Montclare Avenue and Harts Hill on Sidney Street were put into service. Residents in these areas should have improved water pressure, particularly during periods of high demand.

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 at the Dept. of Public Works or online at <http://www.mass.gov/dep/water/drinking/3305000.pdf>.

WATER ANALYSIS

The Town of Wakefield and the MWRA analyze water samples regularly to ensure we meet all standards. In 2013, we tested for more than 100 substances. We only detected 8 regulated contaminants 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. For the benefit of those persons who are restricting their sodium intake, we would like to provide supplemental information. Our testing indicates a sodium level of 64 ppm (about 15 milligrams per 8 ounce serving). A "low" sodium diet allows consumption of water with 140 milligrams of sodium per serving. For additional information on sodium, please contact the Board of Health.

Richard F. Stinson, Director of Public Works

For any additional information including information about public 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.

TABLE 1. REGULATED CONTAMINANTS

Parameter	Units	MCL (Highest Level Allowed)	Highest Level Found	MCLG (Ideal Goals)	Violation	How it gets in the water
Turbidity ¹	NTU	TT=5 NTU	0.52	n/a	NO	Soil runoff
		TT=% of samples <1.0 NTU	100%			
Fluoride ²	ppm	4	1.1	4	NO	Water additive which promotes strong teeth
Sodium	ppm	Not applicable (n/a)	64	n/a	NO	Water treatment, common mineral in nature
Nitrate	ppm	10	0.29	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes	ppb	80 ³	55 ⁴	0	NO	Byproducts of drinking water disinfection
		range of detection 4-74 ³				
Haloacetic Acids	ppb	60 ³	37 ⁴	0	NO	Byproducts of drinking water disinfection
		range of detection 15-48 ⁵				
Combined Radium 226 and 228	pCi/L	5	0.6±0.5	0	NO	Erosion of natural deposits
Lead	ppb	AL=15 ⁶	2 ⁶	0	NO	Corrosion of household plumbing systems
		range of detection nd-82 ⁵				
Total Coliform	%	5%	2.1% (Sept)	0	NO	Naturally present in environment

¹TT = Treatment Technique: Turbidity is a measure of treatment performance and is regulated as a treatment technique. In Wakefield, 100% of samples met the treatment technique requirement.

²Both 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 at individual sample sites.

⁴ Highest detected level is based on average of four quarterly samples of individual sample sites as required by regulation. ⁵ Highest value in range is based on individual samples, rather than averages.

⁶ For lead, the Action Level (AL) and the highest level found are based on the 90th percentile of the samples. Most recent lead results were obtained in 2012.