

**A MESSAGE FROM PUBLIC WORKS ON  
DRINKING WATER**

It is the role of the Department of Public Works to maintain the water distribution system for the town, which includes sampling and testing to ensure that water quality standards are met. A notice of noncompliance regarding the town's drinking water was published in local papers and mailed to citizens and businesses this week. This notice is required by The Department of Environmental Protection since the Town operates a Public Water Supply System. This past August various test samples indicated the presence of coliform bacteria; subsequent test samples for the same locations taken throughout the testing week came back clear. The MWRA also helped in the West Bedford section employing their mobile disinfection unit to help maintain the proper chlorine residuals on the outskirts of the distribution system. The efforts in August helped immensely as September's testing came back significantly cleaner with only three samples showing the presence of total coliform bacteria. The number of positive hits was reduced substantially from fifty-six in August to only three in September.

It is important to understand that coliform bacteria are naturally present in the environment and are monitored because their presence in the water is an *indicator* of potential issues within the water distribution system, *not* because the coliform bacteria themselves are dangerous. Coliform bacteria are most likely to appear in testing during the summer months because elevated water temperatures can facilitate bacteria growth. The coliform itself is not considered harmful, and no harmful bacteria were identified in the sample tests. Therefore the water coming from the distribution system meets all standards set by the DEP and is safe to drink.

Last summer the town received numerous samples indicating coliform at various sites and so began to correct the issues within the distribution system. The Department of Public Works, the DEP, the Massachusetts Water Resource Authority (which provides the water for the distribution system), and the Town's water system consulting engineers all worked together to alleviate the issue. Since that time an accelerated plan has been underway to vastly improve the infrastructure for the distribution system. August presented the biggest challenges this year to date for many reasons, because the temperature and temporary surface water mains created elevated water temperatures. As temperatures started to drop off in late September so did the occurrence of coliform in the samples. The progress to date is duly recognized, as the total number of coliform hits has been significantly less than this time last year.

There has been an abundance of work improving the distribution system since last year, including the cleaning and lining project, water tank cleaning, and computer system upgrades. Over the past year the Town has been cleaning and relining the interior of water main lines that serve as the primary route from the Town's connection to the Lexington water system. This process includes scraping off deposits within the pipe. Once the interior walls of the water main are cleaned, a cement lining is put in place which creates a new interior surface and prohibits future growth of rust. Cleaning and lining of the water main has been completed from Shawsheen Road to Fletcher Road and will continue to North Street with expected completion by November. In addition, a new water main pipe is in service for the

portion of The Great Road from Shawsheen Road to Lexington where the Town receives its water from the MWRA through Lexington. Engineering and planning is currently underway for next year's cleaning/lining project on Shawsheen Road and Page Road expected to start in the spring.

Bedford has three water tanks used for storage, fire protection, and to maintain pressure throughout the system. The Pine Hill Road tank was cleaned, and a mixer added that helps reduce water stratification. The Reeves Road tank, which is half the size of the Pine Hill Road tank, was also cleaned. Work has been completed on the Crosby Drive tank which includes cleaning and adding a mixer with exterior painting of the tank scheduled for next year. The computer controlling the water system was reprogrammed to ensure that more water is moving in and out of the tanks on a daily basis to maintain fresh water.

Water flushing has been increased through summer months as directed by DEP to maintain the water quality in the system. Certain areas of the distribution system have had running hydrants to ensure fresh water reaches the ends of the system. The town regularly flushes hydrants each spring and fall which helps remove any rust and/or loose sediments in the system.

Also during this past April the connection to the Town of Lexington delivering MWRA water to Bedford was shut off and the connection to the Town of Burlington system was opened. This allowed elevated levels of chlorine from the Town of Burlington system to act as a deterrent to bacteria growth in Bedford's water system. The Burlington water system is self-sustaining and uses straight chlorine for water disinfection whereas the MWRA utilizes a combination of chlorine and ammonia in its treatment system for the water provided to its member communities. This process lasted over four weeks and helped improve current conditions existing in the system by burning off any bio-film that may have developed over time in the pipes. The Town anticipates repeating this process in the spring of 2014.

The department has been working diligently over the past year to make improvements to the water distribution system and will continue to review any areas of concern to ensure a distribution system that provides clean water. The hard work over the past year combined with the efforts this year have shown much better results as testing has indicated minimal water problems as compared with last summer. However there is certainly more improvements moving forward that need to be done to help progress the effort of eliminating water quality issues.

Please feel free to call the Department of Public Works should you have any concerns or questions: 781-275-7605.

Thank You  
Roy E. Sorenson  
Director of Public Works