

# Dedham-Westwood Water District 2014 *Annual Report*

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## **Mission**

The Dedham-Westwood Water District (DWWD) Board of Water Commissioners sets policy, prepares operating and capital budgets, and establishes rates along with rules and regulations for the Water District. The mission of the DWWD is to provide the residents and businesses of Westwood and Dedham with high quality drinking water for domestic purposes and for fire protection.

## **Water Supply**

The District continues to conduct its operations towards providing high quality, safe drinking water, in compliance with all federal and State Drinking Water Regulations as well as actively pursue land use and regulatory measures that will serve to protect the water resources used to supply our drinking water. The District's partial membership in the Massachusetts Water Resources Authority allows for the annual purchase of up to 73 million gallons of water that is available as a supplement, as well as for an emergency, to the District's existing water supply. A summary of all water quality test results is mailed annually to all DWWD customers.

## **Water System Infrastructure Improvements**

This past year \$3.1MM was spent on capital improvements, which is a typical yearly investment. In total 19,373 feet of water main was installed or replaced in Clapboardtree Street, High Street and University Ave in Westwood and in Taylor Ave, Zoar Ave and High St in Dedham. There are approximately 210 miles of water pipe in the system. The DWWD generally replaces one to three miles of pipe each year. Still, there remains a significant amount of old unlined cast iron pipe to be replaced. A 2012 study of the system by Weston and Sampson Engineers recommended an annual investment into replacement water mains of at least \$1.4MM annually for the next twenty years.

Forty-six new water services were installed this year and we replaced sixty-seven old service pipes, generally coordinated with Town paving schedules.

Other capital improvements included sixteen hydrant replacements and thirty-four new hydrants were set. We replaced 1150 meters with the new radio style. Approximately 95% of our customers now have the radio style meters, which has greatly reduced the time needed to read the meters.

The emergency generator and heating system at the White Lodge Treatment Plant were replaced this year at a cost of \$1.1MM. The capital budget approved for 2015 is \$3.7 MM.



### Bridge Street Treatment Plant and Pump Station

The Bridge Street Water Treatment Plant, built in 1881 as a steam driven pump station, provides public water supply and fire protection to the Towns of Dedham and Westwood. The pumping station was electrified in the 1950s, and was significantly expanded in the 1991 to include pressure filtration for iron and manganese removal. The DWWD currently finds the treatment plant in need of extensive renovation to the structure, building systems and some process and pumping equipment in order to continue its purpose of supplying potable drinking water to the communities. The DWWD Board has begun the process of evaluating the facility for a significant renovation with the goal of preserving the local water supply, retaining the existing building exterior and minimizing environmental impacts

### Water Conservation

Water conservation continues to be an integral part of the DWWD mission and day to day operations. Last fall we conducted another system wide accoustical survey of the water distribution system intended to find water leaks on mains, services and hydrants which are not surfacing. Finding what's called "unaccounted for water" has been a long standing challenge for the DWWD as it is for systems such as ours that started well over a century ago. Water meters are also methodically replaced to assure accuracy and take advantage of new technologies. To date, 95% of customer meters have been replaced with radio style

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meters. Rebates continue to be offered to promote the upgrade of toilets and washing machines to low flow versions. Lastly, we continue to offer water resource protection and water conservation education in both Dedham and Westwood Elementary Schools, community Green Fairs, Earth Day programs and Farmer's Markets. Aside from being the right thing to do, water conservation is necessary to continue to comply with MADEP issued water permits, without which we could not withdraw the water quantities needed from the Charles and Neponset river basins.

### **Financial**

DWWD continues to be a financially sound organization as evidenced by the recently completed financial audit conducted by the CPA firm of Melanson and Heath. The Moody's Bond Rating is Aa2. Water rates are comparable to many Massachusetts communities. Each year, the DWWD replaces water mains and services, meters, pumps and motors and other equipment, needed to keep the water works reliably running. The DWWD Board voted to issue refunding bonds as well as to make a new issue of \$3,000,000 General Obligation Bonds for various water system improvements, including, replacing mains, hydrants, customer service line pipes, water meters, installation of replacement groundwater wells, and the replacement of heating system and emergency generator at the White Lodge water treatment facility.

### **Cross Connection Control Program**

The DWWD Cross Connection Control Program is a key element of the Water System operation. DWWD is committed to protecting your public water system from contamination due to backflow or backsiphonage of connections containing non-potable water.

Backpressure and cross contamination can occur when the pressure in equipment or a system is greater than the pressure in the drinking water system. Contamination can also occur when the pressure in the drinking water line drops due to occurrences such as main breaks and heavy water demand causing contaminants to be siphoned out from equipment and into the drinking water. Dedham-Westwood Water district's water system is protected by the control of actual or potential cross connections through two programs:

1. The elimination of existing or future cross connections through inspection and regulation of plumbing and water piping within a customer's premises.
2. The proper installation and maintenance and testing of backflow preventers on cross connections that have been approved.

Cross Connection surveys were conducted at 150 commercial and municipal locations this year. 1300 tests have been performed this year on backflow preventer devices installed in many commercial and municipal facilities to make sure they work properly.