

# Dedham-Westwood Water District 2015 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 \$2.7MM was spent on capital improvements. In total 7,130 feet of water main was installed or replaced in Juniper Ridge Road, Whitewood Road, Canton Street , Dover Road, Circuit Road and Russell Lane in Westwood. 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.

Sixty four water services were installed this year which are generally coordinated with Town paving schedules.

Other capital improvements included three replacement wells installed at the Bridge Street wellfield, improvements to security systems, thirty two fire hydrant installations and 450 water meters. Approximately 98% of our customers now have the radio style meters, which has greatly reduced the time needed to read the meters. Plans are underway to convert to monthly billing.

The capital budget approved for 2016 is \$4.6MM.



*Bridge Street Treatment Plant and Pump Station*

Last fall, the engineering firm of Wright-Pierce began the design plan for improvements to the Bridge Street Treatment Plant. In January 2016, the MADEP announced the work eligible for low interest financing through the Massachusetts Clean Water Trust. The Bridge Street Water Treatment Plant, built in 1881 to provide public water supply and fire protection was expanded in 1989 to include pressure filtration for iron and manganese removal. The treatment plant needs renovation to the structure, heating and ventilation systems, some process and pumping equipment and will include a new building to house filtration equipment. The design will be completed this fall and the construction work is expected to start in the Spring of 2017. The estimated cost of the project is \$8 million dollars.

### **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, 98% of customer meters have been replaced with radio style 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,

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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.

### **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 160 commercial and municipal locations this year. 1223 tests have been performed this year on backflow preventer devices installed in many commercial and municipal facilities to make sure they work properly.