

WATERLINES

A Publication of the Bangor Water District

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What's in your tap water besides water?



The Bangor Water District's Water Quality Report will tell you where your water comes from, what's in it, and how safe it is. See the insert for the BWD's Report for 2010.

So What Have We Done Lately?

Bangor Water District is continuing its focus on aging infrastructure and on preventive maintenance with an eye toward cost effectiveness.

One of our more visible infrastructure projects was completion of a new 3.4-million-gallon concrete standpipe on Essex Street, replacing an aging 4 million-gallon tank. Concrete was chosen based on operating and maintenance costs compared to a steel tank. Planning and construction was funded by American Reinvestment and Recovery Act (ARRA) monies (30 percent grant coupled with a no-interest loan).

We received a \$22,500 grant from Efficiency Maine to install a "passive" mixing system in the standpipe. See Page 3 for more cost-saving measures.



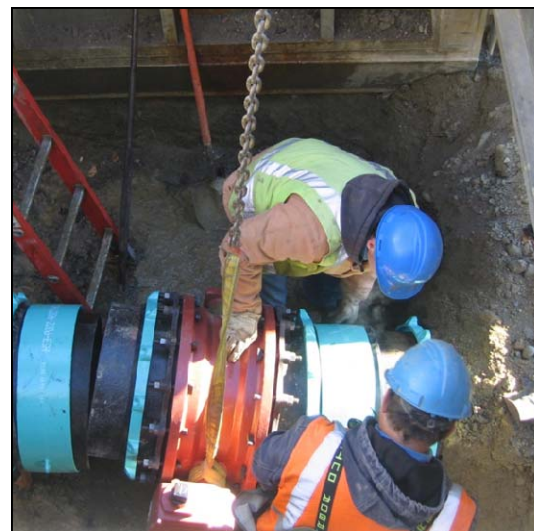
New Essex Street standpipe

Projects completed in 2010

- Replacement of 1200 feet of 8-inch pipe on Mount Hope Avenue between Forest Avenue and Birch Street.
- Replacement of 600 feet of 6-inch pipe on Bellevue Avenue between State Street and Garland Street.

Projects planned for 2011

- Replacement of 1300 feet of 8-inch pipe on Buck Street with a new 12-inch line to eliminate "leadite" pipe joints. Leadite is a replacement material for lead developed in the 1900's and used until the 1970's; it is prone to corrosion and becomes brittle fre-



Crews replacing an old 20-inch valve on Essex Street

quently resulting in leaks.

- Replacement of 650 feet of pipe on Pine Street starting at Stillwater Avenue to improve water quality on the dead-end line.
- Installation of three new 20-inch valves on Garland Street to improve isolation of leaks, particularly on the large diameter line. Relocation of the valves will also eliminate a pit, making maintenance safer and more cost-effective.

- Continued assessment of and replacement planning for **180 miles of pipe in seven communities** connecting over **12,000 service lines** and **1200 hydrants** as well as **seven standpipes**.

LEAK SUMMARY	# Leaks	Labor and material costs
2007	39	\$142,899
2008	34	\$ 94,516
2009	51	\$150,572
2010	20	\$ 53,153

BWD Plans Water Rate Adjustment for 2011

The Board of Trustees is requesting approval for a water rate adjustment from the Maine Public Utilities Commission. If approved, the new water rates will take effect July 1, 2011; the last rate adjustment was in 2009.

Under the new rates, the **minimum** residential bill would increase **four cents per day** (\$29.91 per quarter to \$33.20 per quarter).

The average residential water bill would increase six cents per day (from \$51.91 per quarter to \$57.62).

The District will hold a public hearing on the proposed adjustment at 7:00 p.m. on May 19 in the City Council Chambers.

We believe public drinking water continues to be a great value. BWD customers would receive **four gallons of water for just over one penny**—water that is regularly monitored for over 100 contaminants and must meet nearly 90 regulations.

BWD also provides fire protection, ensuring a well-planned distribution system with adequate hydrants and sufficient volume and pressure.

Public drinking water acts as an engine for economic development by offering available quantity, appropriate quality, and reasonable rates.

The need for the 2011 water rate change is driven by ongoing District needs, including:

► **Infrastructure improvements.** With **180 miles of pipe** in its system and an estimated life-span of 100 years, the District should be replacing 1.8 miles of pipe

each year. If we decided to meet this goal, it would require a substantial rate increase simply to fund pipe replacement, so we must balance our most important needs against available resources.

► **Federally mandated additional disinfection.** New regulations require treatment which must be operational by 2013. We are involved in a multi-year planning and construction effort to design and install UV (ultra-violet) disinfection at the Butler Ozone Treatment Plant at an estimated capital cost of \$3–6 million. Part of the planning and design work was funded by an ARRA grant and no-interest loan.

► **Overdue upgrades to our main pump station** at Floods Pond, which has essentially been operating since its construction in 1957. Four 150 hp pumps send five million gallons per day into the distribution system—and two of the four pumps are the original units installed more than 50 years ago. Repair parts and service are difficult to come by, and the units are not energy efficient. Upgrades are estimated at over \$3 million.

► **New SCADA system** (system control and data acquisition). SCADA functions as the District's nerve center—monitoring and controlling water treatment and distribution. The existing software was purchased in 1987, and has limited functionality and non-existent support for hardware and software. We received \$345,000 from the Maine Drinking Water Program to help design, purchase, and implement the new system.

36¢ a day!

Drinking

Showering

Brushing Teeth

Laundry

Washing Hands

Flushing

Washing Dishes

Cleaning

Ice

Water for Pets

2011 Tours

May 18	3—6 p.m.
July 20	5—9 p.m.
Oct. 12	3—6 p.m.



2010 Pumpage Record

Water pumped:	1,824,380,000 gallons	
Maximum:	7,910,000 gallons	August 17
Minimum:	3,158,000 gallons	December 23
Daily Average:	4,998,300 gallons	

BWD Seeks Ways of Reducing, Avoiding Costs

Bangor Water District continues to find ways to reduce or avoid the “cost of doing business.”

For example, the electrical bill at our treatment facility totaled \$270,000 in 2010. To offset some of those costs, the District:

- ▶ participates in several programs through our electrical supplier. These include careful planning of pumping/treatment to allow going “off grid” by using generators when New England’s energy demand is highest.
- ▶ designed and installed an energy-recovery turbine at one of our control valve sites to generate electricity as water flows through the unit and into the City. The sale of this energy will help offset our electrical bill.
- ▶ upgraded to a more energy-efficient air compressor at the Butler plant with a \$22,500 grant from Efficiency Maine. The energy savings will exceed the purchase price in three years.
- ▶ retrofit the lights in our State Street garage facility with energy-efficient units triggered by motion sensors. The project costs totaled \$8,000 including a \$1,900 Efficiency Maine grant for the light fixtures.
- ▶ replaced 100 ozone diffusers in our disinfection basins. The annual replacement cost is about \$15,000 but “lazy” diffusers use more chemicals and more electricity.

We meet regularly with state and local planning officials for better coordination of projects.

Last year, this resulted in the installation of 200 feet of 12-inch pipe on outer State Street as part of a Maine Dept. of Transportation stream culvert project. The new line, not currently in service, was installed in anticipation of future needs—which avoids the cost of



Turbine unit at control valve site

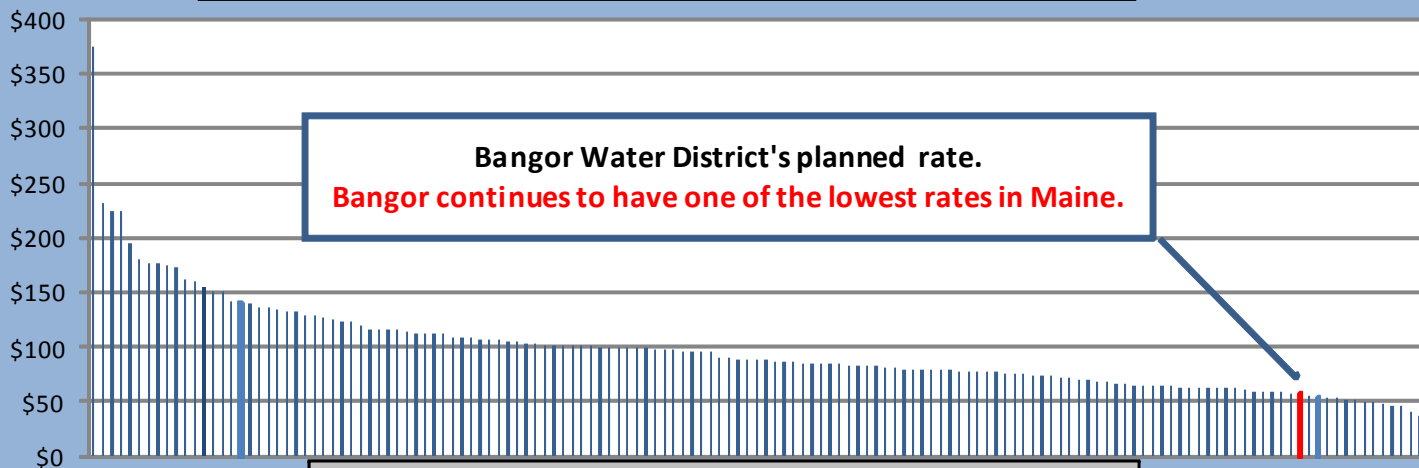
disturbing the paved service of the road.

We continue to install water meters that allow us to gather readings with a hand-held unit as we drive by buildings. To date, about 4,400 of our 11,000 accounts have been converted. The meters reduce errors from manually entered readings, as well as reduce the time required to obtain readings—allowing our service worker to perform other functions.

We have utilized two University of Maine interns to gather and record data for our GIS (geographical information system) project. The electronic “mapping” of lines, valves, hydrants, and other water system features makes the locating and sharing of information about our facilities faster.

To date, we have been able to maintain our permanent work force at 31 employees since 1995 in spite of increased work-load demands and expansion of our service area.

Maine Water Utility Rate Comparison Bangor Water District has one of the **Lowest** Rates in Maine



Rate Comparison for 20 hundred cubic feet, Rates as of 3/1/11

How Can I Pay My Water Bill? . . . Here Are Some Options

Bangor Water District offers a number of options for paying your water bill. This information is also available on your bill and on our website.

Direct withdrawal from your checking account:

The authorization form is available on our website or call us for a copy. Payment is withdrawn on the due date of bill.

Credit card on-line: www.officialpayments.com or link through our website www.bangorwater.org

(Official Payments charges a \$3.95 convenience fee)

Choose local payments, Jurisdiction Code: 2908

Enter your account number and water payment.

Our customer receives a transaction number as a receipt of payment. We are notified on the next business day.

Credit card by telephone:

Official Payments 1-800-272-9829

(Official Payments charges a \$3.95 convenience fee.)

Choose Option 3 - local payments; Jurisdiction code: 2908

Enter your account number and water payment.

Our customer receives a transaction number as a receipt of payment. We are notified on the next business day.

BWD does not accept credit cards over the phone or at its office; all credit card payments are processed through Official Payments.

At Bangor Savings Bank: You do not need an account at the bank to use this service. However, you must bring your original bill (not a late notice) with you because the bank cannot access your BWD water account for information. We receive notification on the next business day.

By mail: PO Box 1129
Bangor ME 04402-1129

Information on local financial assistance:
Dial 2-1-1 or www.211maine.org

HYDRANT FLUSHING

Beginning in April and running through late summer, we will conduct system-wide directional **flushing** of all water mains to maintain water quality and monitor the integrity of the system.

Opening a hydrant draws water through the main at a faster than usual speed, allowing any sediment to be flushed away. The sediment is a corrosion byproduct associated with pipe (such as iron). Although the water may look discolored, it is safe to use.



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Learn more about us on-line at www.bangorwater.org



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