



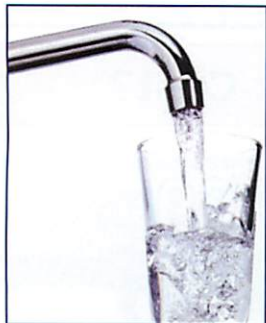
WATERLINES

A Publication of the Bangor Water District

Inside This Issue:

More on water rates vs. infrastructure needs	2
Thomas Hill Standpipe tours	2
New UV disinfection plant	3
Water meter change-outs	3
Water bills and payments	4

What's in your tap water ?



The 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 2013.



The Balance between Stable Water Rates and Infrastructure Needs

When "out of sight means out of mind," it can be hard to convince your customers to invest in upgrades and replacements . . . until there's a broken water line.

Water system infrastructure nationally has sometimes been neglected, often due to lack of funding. In Bangor, "infrastructure" means 188 miles of pipe and 1200 hydrants in seven towns, four pump stations, six standpipes, two treat-

ment facilities, and an office/garage facility. Our sole funding source is water rates (since we're not a municipal department, we are not supported by taxes).

Part of our job is to balance the needs of system against sustainable rates for our customers. Our current rates have been in place since 2011, and are the 14th lowest out of 147 Maine water utilities. We've been able to hold the line by:

- Using **innovative techniques** to renew pipe, such as scouring the inside of a 16-inch main at Bangor International Airport, and then lining it with a special coating. This process is far less expensive and disruptive than digging up and replacing an existing main. (Replacing one mile pipe by open-cutting costs approximately \$1,000,000.)
- **Minimizing work time** as well as customer disruption. We will insert a new pipe inside an old pipe (called slip-lining) to repair a line suspended under a bridge in downtown Bangor that spans the Kenduskeag Stream. The process should take a matter of days, rather than weeks associated with traditional repair methods.
- **Reducing electrical consumption**, our second largest expense at \$203,000 last year. An energy-generating turbine at a pump station produces power that we credit back to our power bills. A new energy-efficient compressor at our ozone plant will

(continued on page 2)

Get The Lead Out (of Your Plumbing Fixtures)

Did you know that faucets, fittings and valves sold in the United States as of January 2014 must essentially be "lead free?" Until this year, plumbing fixtures could legally contain up to 8% lead; the new rule requires them to have no more than 0.25% lead.

There is no lead in Floods Pond (our source of supply), in our distribution system piping or other components, nor in the water we deliver to customers. However lead can leach from a building's internal plumbing if it contains lead solder used to connect pipes, or fixtures and faucets that contain lead.

If you have older plumbing fixtures, you can replace them with "lead free" fixtures in the coming years, reducing your lead exposure potential.

In the meantime, if your home has lead solder or fixtures containing lead, you can reduce your exposure by letting the cold water run for two to three minutes whenever the water has not been used in several hours.



Infrastructure Needs vs. Water Rates (continued from page 1)

save \$158,000 on electrical costs over its lifetime. A passive mixing system at one standpipe reduced power costs from \$1200 per month to nearly zero. New LED bulbs on



Thomas Hill Standpipe—replacing original 1916 fixtures—last much longer and cost less to operate. Overall, BWD has reduced its power costs by 40 percent since 2006.

- Using the lowest possible cost financing, such as through the State Revolving Loan Fund (SRF) which offers grants, debt forgiveness, and low interest loans for qualified water projects.
- Changing our health insurance plan, for significant savings with similar coverage.
- Carefully managing our bond debt, currently at \$9.3 million. This year, we will retire the 20-year note - originally \$3.8 million— used to construct the Butler Ozone Treatment Facility.

At the same time, BWD must evaluate its infrastructure—some of which is 100 years old

and totals 188 miles of pipe —and prioritize replacement/upgrade needs. Development of a new master plan in conjunction with our consulting engineers as well as electronic mapping of all assets will provide updated tools to maximize decision-making.

Some factors we consider are: available funding for work; the age of the pipe or a history of leaks; coordination with other utilities, the municipality and the State, so all work can be accomplished at once; and needed improvements for water quality, such as interconnecting dead-end lines, or for fire flows.

In 2014 the District plans to replace 1.4 miles of pipe at a cost of \$2.3 million. Projects will include:

- In conjunction with the City of Bangor sewer and other infrastructure work, BWD will replace 100-year-old pipe along **Broad Street** in downtown Bangor. The \$200,000 water project is complicated by the overlapping of buried utilities and the need to provide safe passage in the work area.

"There is a very significant need to increase the investment in water infrastructures because the systems that we rely on are very largely bought and paid for by earlier generations, and they're coming to the very end of their useful service lives."

Tom Curtis American Water Works Association

- In another joint BWD/City project, we will replace 3600-feet of 16-inch pipe on west side of Main Street between Cedar and Dutton streets at a cost of \$1.15 million. This will improve the reliability of the line, and provide redundancy to feed lower Main Street as well as the Hampden Water District.
- In conjunction with Maine Dept. of Transportation bridge rehab, we will install a 16-in line suspended from the **Union Street I-95 overpass** (project cost \$296,000). The 12-inch line currently crossing Union Street in that area is buried under Interstate 95!

2013 Pumpage Record

Water Pumped	1,596,023,000 gallons
Maximum (Aug. 23)	7,114,000 gallons
Minimum (Jan. 6)	2,910,000 gallons
Daily Average	4,372,665 gallons

How Much Does It Cost?



\$29.69 for 10,000 gallons of tap water (about 4 gallons for 1 cent)

2014 Standpipe Tours



May 21	3—6 p.m.
July 23	5—9 p.m.
Oct. 8	3—6 p.m.
Dec. 10	2—5 p.m.

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UV Plant Provides Additional Disinfection

Construction of our new ultra-violet light (UV) treatment facility at Floods Pond in Otis was completed in 2013, and put into service last June.

The District continues to use ozone as its primary disinfectant. Water moves through Johnston Pump Station and Butler treatment plant, where it is treated with ozone and UV. Chloramines (a combination of chlorine and ammonia) are then added to provide a long-lasting disinfectant residual.

The additional UV disinfection process is required by new federal regulations relating to *Cryptosporidium*. While *Crypto* has never been detected in Floods Pond, primarily due to the pond's remoteness and



BWD's control of watershed activities, federal guidelines mandate additional treatment to further protect public health.

(*Crypto* is a micro-organism that causes gastrointestinal distress, especially problematic for the elderly and those with compromised immune systems.)

Renovation of Johnston Pump Station is slated for this year, including replacement of two antiquated pumps, replacement and relocation of electrical equipment, installation of a new generator, and redesign of the "wet wells" through which the water flows. The pump station was built in 1958, and has remained essentially unchanged while operating 24/7.

Progress Made on Water Meter Changes



Bangor Water District will convert another 1,000 water meters this year to "remote read" units—which allow us to read the meter each quarter using a computer tablet while driving by.

We began changing to the new style meter in 2000, and to date more than 6,800 of our 10,700 meters (located in seven communities) have been completed.

Our water meters:

- are not connected to your electrical system, your telephone line, or your cable/satellite system.
- do not use cell towers to transmit readings.

- use a battery to transmit the meter reading to the receiver in the truck. The battery typically lasts seven to 10 years.
- do not transmit customer information such as names or account numbers. Meter identification numbers and the meter reading are the only information in the transmission.
- do not allow us to obtain readings from our office. We must drive by the building in a vehicle equipped with a computer tablet.

The technology will reduce the amount of time spent reading meters, and allow service personnel to perform other tasks.

Bangor Water District



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BANGOR WATER DISTRICT WATER BILL

Service Address: 11 Burnham Street, Apt. A222
Account #: 8963745
Class Type: Residential

Billing Period: 4/1/13 to 4/15/13
Killing Date: 4/15/13
Due Date: 5/15/13

Account Detail:
Payments—Thank you: \$46.52
Balance Forward: \$0.00
Total Current Water Charges: \$33.20
Sales Tax:
Water Interest:
Total Due: \$33.20

Water Use History (1 hundred cubic feet (HCF) = 7.48 gallons):
Period: 4/1/13 to 4/15/13
Current Use: 80
Average rate: \$0.42

Due Date: 5/15/13
Account #: 8963745
Amount Due: \$33.20
Amount Paid:

Paperless Water Bill Delivery and Payment

Bangor Water District customers now have more options for receiving and paying bills.

For more than a year, BWD has been issuing a "stand-alone" water bill, mailed separately from

the City of Bangor's sewer/storm water bill. ers options for paying their water bills—by credit/debit card for a fee, and through an electronic funds transfer (EFT) at no charge.

Paying your water bill:

You can also pay your water bill

- at Bangor Savings bank branches, as long as you have the **original bill** (not a late notice). Bangor Savings does not have access to your water account to find your account number or balance owed.
- By mail to PO Box 1129, Bangor ME 04402
- In person at 614 State Street (cash and checks only)
- Through direct debit from your checking account. The enrollment form is available under "Customer Service" at our website www.bangorwater.org.

the City of Bangor's sewer/storm water bill.

Water bills are mailed two weeks in advance of City sewer bills, and therefore are due two weeks apart.

Your water bill now provides more information on the daily water usage and the daily cost of water service. In most cases, there will be a history of the customer's past use.

Coming this summer: bills by e-mail

Bangor Water District is working with its software provider to offer delivery of your water bill by e-mail. The service should be available by July.

The new partnership will also offer custom-

Bangor has one of the **LOWEST rates in Maine**

