



WATERLINES

A Publication of Bangor Water

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Failure of an old water main in May 2014 and the flooding that resulted (shown in the picture below).

Where to Start? Aging Infrastructure and Affordable Rates

If you had to guess how much of the 200 miles of pipe in Bangor Water's system was installed more than 100 years ago, what would your answer be?

You'll probably be surprised by the answer found in the chart on page 2, which highlights the need to invest in infrastructure replacements and upgrades.

Renewal of water system infrastructure has been deferred nationally, usually due to lack of funds—perhaps in an effort to keep rates low. Pipe installed both a century ago, and during the mid-20th century using inferior materials, has reached the end of its useful life.

To begin to address the problem, Bangor Water has completed a "system infrastructure assessment (SIA)," listing pipes, valves, facilities, and other pertinent information such as age, materials, leak activity and maintenance issues. We've prioritized the needs, and will begin addressing them as funding—both from water bills and from the bonds, loans, and grants—are available.

The proposed rate change will increase the minimum bill by \$1.08 per month, and the average household bill by \$1.74 per month (the price of one cup of coffee).

We will seek to increase our minimum bill by \$1.08 per month starting in July, specifically to fund an infrastructure replacement account. The amount in the account is limited by the Maine Public Utilities Commission, and monies must be used for projects specifically identified in the SIA. *Details on upcoming projects are on page 2.*

Bangor's rates are the 15th lowest among the 147 water utilities in Maine, due to careful management of debt, use of grants and low-interest loans, and investment in energy-saving efficiencies that have reduced power costs by 40 percent since 2006. We also maximize project savings by partnering with other municipalities/utilities and by using new technology to minimize "open cut" replacement of pipe.

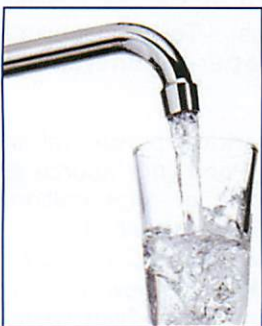
Our recent infrastructure work—in conjunction with the City of Bangor and/or State of Maine—included:

- Replacing 520 feet of century-old pipe on Broad Street (\$204,000).
- Replacing 3,600 feet of pipe on Main Street in Bangor (\$1,054,000).
- Replacing 890 feet of World War II vintage pipe in front of the airport terminals on Godfrey Boulevard (\$198,000).

(Continued on page 2)



What's in your tap water ?



Our 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 2014.

Addressing Aging Infrastructure (continued from page 1)

- Installing a suspended line under the new Union Street bridge (\$296,000). The existing line is buried under I-95.

We also renewed—rather than replaced—pipe by scouring the inside, and lining it with a special structural coating. More than 1,700 feet of a 16-inch main crossing Bangor International Airport was completed for \$356,000, compared to a projected replacement cost of \$1,500,000 per mile of pipe. We may use this process again on other lines.

Where do we begin?

Setting priorities to address infrastructure issues means more than just the age of the pipe. It also involves the history of leaks on the line, any critical facilities served by the line, the availability of funding, other planned utility work in the area, and needed improvements for water quality or fire flows, such as interconnecting dead-end lines.

- We replaced a line on **Silver Road** in 2013-2014, both improving reliability and providing future capacity for the outer Hammond Street area.
- A line suspended under the **State Street bridge** downtown (c 1920's) had experienced several leaks, and was replaced in 2014 (\$92,400).
- Twice each year, we inspect, pressure-test and repair as necessary the **1,100 fire hydrants** in our six-town service area—in addition to shoveling out after snow storms. In 2014, more than 300 hydrants received a new coat of paint. In 2015, we will spend \$30,000 to replace 10 older or less reliable hydrants.

Infrastructure issues in 2015:

Two projects involving pipe installed in the early 1900's will be the focus of projects this summer, both in conjunction with reconstruction being done by the City of Bangor.

Union Street between Main Street and Hammond Street: replacing six-, eight-, and 12-inch pipe with problematic joints with 1,650 feet of 12-inch

ductile iron pipe at an estimated cost of \$625,000.

The joint compound that was used decades ago becomes brittle and breaks. More than 40 miles of our 200 miles of pipe have these joints.

First and Davis streets:

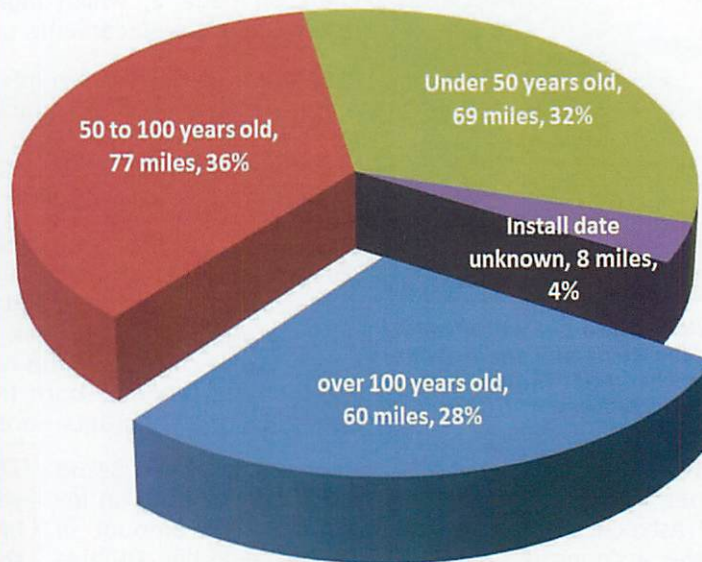
replacing four- and six-inch pipe with 1,260 feet of eight-inch ductile iron pipe, at an estimated cost of \$420,000.

Valve work: investing more than \$100,000 in inspecting, repairing, and replacing valves and valve boxes, including larger main line valves and smaller individual service boxes for dwellings. This will ensure proper functioning

when needed.

Pump Station: planning a critical pump station renovation in 2016 at Floods Pond (our source of supply) with an estimated cost of \$4.3 million. Essentially unchanged since it was built in 1957, the station will receive new pumps, relocated electrical equipment, installation of a new generator for reliability, and redesign of the "wet wells" through which the water flows.

How Old Are Bangor's Water Pipes?



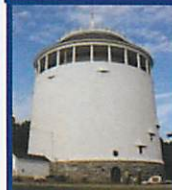
60 miles of pipe are past its useful life with a replacement cost of over \$60,000,000

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Meets 3rd Tuesday of each month at 3:45 p.m.

2015 Thomas Hill Standpipe Tours



- | | |
|---------|-----------------------------------|
| May 20 | 3–6 p.m. |
| July 29 | 4–8 p.m. |
| Oct. 7 | 3–6 p.m. |
| Dec. 16 | 2–5 p.m.
(Santa in attendance) |

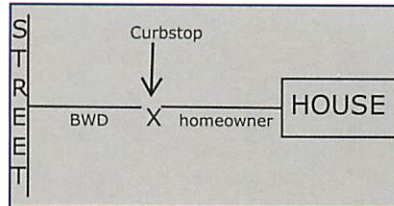
Do I Need Water Line Insurance?

Many customers have received mailings recently, suggesting they purchase insurance to pay for potential repairs needed on the service line that runs from their basement to the water main in the street.

There are legitimate companies that provide this type of insurance, although BWD does not endorse the insurance or any company.

The homeowner is responsible for repairs to the section of the water line running from the basement to the external shut-off valve (curbstop) usually located in the public right-of-way or at the property line.

The utility is responsible for repairs to the remainder of the line. A broken line can cost hundreds of dollars to repair.



However, a homeowner's decision should be based on a number of factors:

- The age of the home: Water lines serving newer homes are usually made of copper, and unless disturbed by digging or some other intrusion, should last for many years. Most service lines are buried deep enough to not be affected by frost.
- The material involved: If the line is made of galvanized steel, the metal has a shorter lifespan than copper and was probably installed a number of years ago.
- Your homeowner's insurance: Find out what is covered and not covered (inside and outside the house) in your policy, and if your company has a recommendation for water line (or sewer line) repairs.

Bangor Water can often provide information on the customer's section of the service line such as age or materials used. Contact our engineering department at 947-4516 ext 3 during business hours.

Inferior Joint Material Often Causes Line Breaks



York Street, Bangor - A leak in a pipe installed in 1939 with inferior joint compound caused disruption of traffic and service to over 100 customers. The joint compound was often used during World War II era installations. Over time, it becomes brittle and breaks, resulting in a water line leak.

2014 Pumpage Record (in gallons)

Water Pumped	1,554,093,000
Maximum (July 22)	5,470,000
Minimum (Oct. 26)	2,724,000
Daily Average	4,257,789

Go "Paperless" for Water Bills and Payments

Customers can now make water payments and receive water bills paperlessly, through our website www.bangorwater.org. You can

- make a one-time payment (no registration required)
- sign up for repeat automatic payments
- receive your bill via e-mail notification

You can also choose your method of payment:

- **NO FEE** for direct debit from your checking account
- \$2.95 for credit card payments (to a max of \$175)

If you establish a username and password through the website, you will also be able to view your billing history, helpful

for comparing water use or gathering information for taxes, real estate transactions, etc.



BWD does not have access to your password; it is secured by the payment vendor.

Customers can still mail a check to our post office box, or pay at Bangor branches of Bangor Savings Bank as long as you bring the ORIGINAL WATER BILL. Bangor Savings Bank does not have access to your water account to obtain information.

www.bangorwater.org or follow us on Facebook

Bangor Water



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Bangor Water Takes "Best Tasting" Award



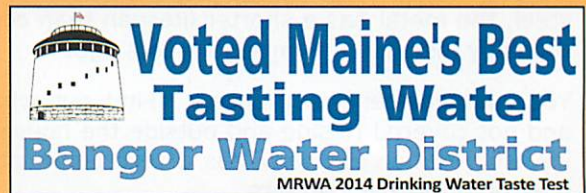
Bangor Water brought home the "best tasting water" award from Maine Rural Water Association's annual conference in December.

A three-member panel of judges sipped blind samples of water from the 10 submissions remaining after "pre-tasting:" five from systems that disinfect and five from systems that do not.

Bangor placed first in the "disinfected" category, and was then named the overall winner, beating out the non-disinfected winner, Point Sebago.

As state champion, Bangor submitted a water sample to the national Rural Water championship in February, but did not bring home a prize.

This is the first year that Bangor has submitted a taste test sample since changing the disinfection process to ozone, chloramines, and UV light.



Bumper stickers available at Bangor Water's office at 614 State St.

Thank You For Helping!

What a winter we had! Thanks to all of you who helped out Bangor Water by shoveling out fire hydrants.

Beginning in May and running through late summer, we will use hydrants to conduct **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 higher than usual speed, allowing any sediment to be flushed away. The sediment is a corrosion by-product associated with pipe (such as iron).

Although the water may look discolored for a short time, it is always safe to use.

