

Spring 2016



WATERLINES

A Bangor Water Publication

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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 Bangor Water's Report for 2015.

Which Pipes Do We Replace?

There's no easy answer to replacing water pipe, either for prioritizing the work list or finding sufficient funding without significantly impacting water rates.

Bangor Water's system dates back to 1875 and has 60 miles of pipe over a century old (almost 30% of our piping system is past its 100-year useful life). As highlighted in the national media and in our own System Infrastructure Assessment (see excerpt below), the problem of deferred maintenance has to be addressed.



The Engineer's System Infrastructure Assessment

Bangor Water's 5-year plan results in the replacement of approximately **7 miles** of problematic water main at an estimated cost of **\$10,300,000**. This equates to approximately **1.4 miles per year** over the next 5 years at an **estimated annual cost of just over \$2,000,000 per year**.

Even with this amount of investment, Bangor Water will be falling behind the minimum goal of approximately two miles of pipe renewal per year.

By taking a **targeted approach** to the issue of water main replacement, we will be able to address the most problematic mains and ensure the reliability of Bangor Water for future generations.

Last year, we began to specifically fund an infrastructure replacement account to the extent allowed by the Maine Public Utilities Commission. More funds will be added this year and in the coming years to ramp up pipe replacement projects.

The choice of which to do first involves many variables—the age and history of the pipe, available funding, other planned utility work in the area for cost-sharing, critical facilities served, water quality, and fire protection flows.

Last year, we invested \$625,000 in a project on lower Union Street to replace pipe installed in the early 1900's. The work was done in conjunction with City and State road reconstruction. Another \$200,000 was invested in replacing similar pipe on First and Davis streets in coordination with City of Bangor revitalization work.

With 200 miles of pipe and a 100-year pipe lifespan, Bangor Water should replace two miles of pipe per year.



Investing in Infrastructure and Controlling Costs

Our request for additional funds this year is another step in addressing infrastructure needs. If approved, a rate increase for all customers would take effect on July 1.

This is an impact of 55¢ per month (2¢ per day) for our minimum users, and 88¢ per month (3¢ per day) for our average residential users.

Part of our job is to balance the needs of an aging water system against sustainable rates for our customers. Even with the proposed increase, our water rates would be the 20th-lowest out of 152 Maine water utilities.

In 2016, we will invest \$2.5 million in pipe infrastructure work, in conjunction with City and State projects:

- Union Street, from I-95 to Vermont Avenue (\$871,000). The pipe dates from 1910-1920's.
- Hammond Street, from State Street to Union Street (\$550,000). This pipe is some of the oldest in our system.
- Broadway, from Center Street to Husson Avenue (\$1.07 million).

We will also complete renovations of our main pump station at Floods Pond. Essentially unchanged in almost 60 years, it will receive four new pumps and pump controllers, relocation of electrical equipment, a new generator, and other renovations to allow partial shutdown of the facility while maintenance is performed.



Long-inactive Civil War era wooden pipe discovered during new pipe installation on Hammond Street

Emphasizing Cost Control

• Generate renewable energy

An energy-recovery turbine (ERT) located at one of our facilities produces electricity that is credited back to our power bills. In 2015, \$35,000 was saved in power costs from the power produced by the ERT. Enough electricity is generated to power 40 homes.

• Using innovative pipe renewal methods

We have scoured the inside of a 16-inch main at Bangor International Airport, and then lined it with a special coating. This process is substantially less expensive and disruptive than digging up and replacing an existing main. (Replacing one mile pipe by open-cutting costs over \$1,000,000.)

• Getting the best deal

We routinely bid a number of products and services to ensure effective pricing. These include construction materials, vehicles, our treatment products, insurance, and banking services. Changing our health insurance plan in 2013 has resulted in a cost savings to date of approximately \$275,000 to date.

• Repair or replace?

In the short term, repairing several leaks in a pipe appears more cost effective than replacing the whole line. But much like an old leaky roof, after awhile you eventually just need to replace the whole roof.



Rate Increase Monthly Impact to Residential Customers

	Increase per month	Total cost per month
Minimum Bill	55¢	\$12.70
Average Bill	88¢	\$20.34

Board of Trustees

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

Bangor Water's Exceptional Water Quality Is Reflected in its Taste



Safe,
clean,
reliable
drinking
water.

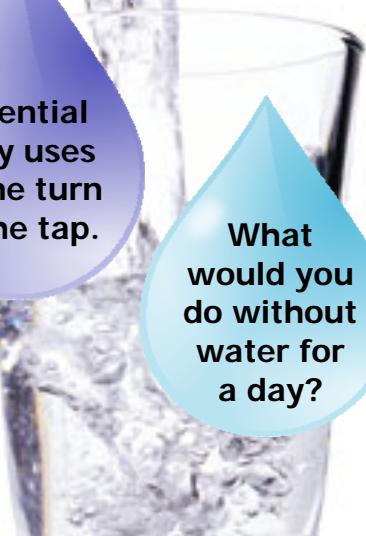
No lead
components
in water
system. Lead
free source
of supply.

Essential
daily uses
at the turn
of the tap.

Meets or
exceeds all
drinking
water
standards.

Winner of
Maine Rural
Water's 2014
drinking
water taste
test.

What
would you
do without
water for
a day?



Partnership With UMaine Results in Standpipe "Show"

Come join us for our May tour at Thomas Hill Standpipe. The tour will feature an unusual offering: water-themed graphic effects projected on to the side of the standpipe.

Bangor Water was approached last year by Gene Felice from the University of Maine's Innovative Media, Research and Commercialization Center (IMRC) with a proposal for his projection mapping class. Students will create videos for viewing during Bangor Water's standpipe tour in May.

District Trustees viewed the technology at an on-site demo last October, just after the IMRC students participated in Bangor's Artober where they did projection mapping on the exterior of the UMaine Art Museum in downtown Bangor.

If you can't come to the tour, make sure you check out the live webcam shots from Thomas Hill Standpipe. You can view the images on our website at:
www.bangorwater.org

2016 Thomas Hill Standpipe Tours

May 4	5:30-9:30 p.m.
<i>Rain Date: May 11, 5:30-9:30 pm</i>	
July 27	5:30-9:30 p.m.
Oct. 12	3-6 p.m.
Dec. 14	2-5 p.m. (Santa in attendance)



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Bangor, ME 04402

What Does 42¢ Buy?

Bangor Water

All your daily water uses*Based on minimum residential bill
using 74 gallons per day**74 gallons per day***

Bottled Water

42¢

**Just a few gulps!**