

Presentation of Strategic Plan for Repairing the City's Water, Sewer, and Stormwater Systems Newton Board of Aldermen, Meeting of the Whole, February 29, 2012

The city's aging underground plumbing is overdue for rehabilitation, according to City staff, who told the assembled Board of Aldermen on Wednesday, February 29, that without expedited repairs, the City could be facing higher assessments, more sewer backups, inadequate water flow for fire fighting and health, and possibly fines from the EPA.

The fix just for water and sewer pipes will cost nearly \$90 million by staff estimates, which they propose funding with increased water and sewer fees. For an average household, consuming 9,000 cubic feet of water, that will mean an increase of about \$50 each year, from about \$1,300 in combined water sewer fees this year to about \$1,900 in those fees in 2022.

While this may seem steep, the consequences of not fixing the pipes sooner are also very expensive. Already, Newton is paying a premium in MWRA sewer fees because roughly 60 percent of the outflow to Deer Island Sewage Treatment from Newton is clean rain or groundwater.

That's because we have both illegal connections that put stormwater into sewers (including private connections from sump pumps, roof leaders and driveway drains), and many leaky pipes that allow rain and groundwater into the sewer. Nearly 40 percent of the city's 284 miles of sewer pipes are more than 90 years old. The City also has 75 miles of underdrains, which take high groundwater levels out to the river. The trouble is that when these drains were installed many decades ago, the City engineers connected them to the sewers, which allows sewage into our lakes, streams and rivers, as well as clean water into our sewers.

Fortunately, if Newton can get ahead of its sewer pipe rehabilitation – which involves cleaning and re-lining pipes, usually without digging up roads – the City will save on its sewer assessments. Fred Russell, director of water/sewer utilities, estimates that if Newton can reduce the clean water flow into the sewers by 50 percent, the MWRA will charge us nearly \$4 million less.

The water system is similarly aged, and the City's repair schedule for water pipes, like for the sewer pipes, has not kept up to speed. The issue is not leaks – water pipes are pressurized, so leaking pipes present an immediate repair need – but rust. Of the 318 miles of publicly owned water pipe in Newton, 165 miles are unlined cast iron. Those pipes get rusty, which makes the interior diameter smaller and decreases pressure – most important for fighting fires. The benefit of fixing these pipes is that the City can then decommission two water towers rather than repairing them, and can also better account for all the water Newton purchases. Currently about a quarter of the City's water is “unbilled.” Now that new water meters are in almost every home and business, more of it should be billed (although fire uses and pipe flushing will still account for some unbilled water).

The Board of Aldermen will be facing the question of water and sewer rates, in order to pay for the increased rate of repairs for the underground pipes, as part of the Capital Improvement Plan (CIP). February's presentation was one of the final meetings on the capital budget before the Aldermen start work on the annual budget for fiscal year 2013, which starts in July.

The other plumbing issue facing Newton is stormwater. This system is paid for by fees on real estate bills – \$25/year for owners of single-family homes and \$150 for all commercial owners. The City proposes changing the commercial fee to one that is fairer – one that takes into account the amount of impermeable surface (hard roof, parking, etc.) and charges on a sliding scale depending on the acreage of such surface – so businesses that occupy just one storefront without parking will pay less than those that have several acres of parking lot. The increased funds will go to inspect the catch basins and storm drains, to make sure they are in good repair, and to eliminate pollution to our lakes, streams and river before the EPA starts to inspect and fine for that. The residential fee for single-family homes would remain the same.

An additional benefit of making needed repairs will be predictability in rate increases for Newton's water and

sewer consumers. As the new water meters have increased the percentage of billed water, the City has been able to build up reserves. These in turn are available when the City experiences a wet summer (which means less consumption) or a pipe emergency (several repairs in recent years have been unexpected as the result of a pipe failure). As repairs go ahead, the City will presumably also have fewer emergency repairs. This will mean that the steep fluctuations in rates the City has seen recently will be reduced or eliminated.

The full presentation can be viewed at <http://www.newtonma.gov/civica/filebank/blobdload.asp?BlobID=38975> and will also be broadcast on NewTV.

Respectfully submitted by
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