

WHY DO WE NEED A WATER BOND NOW?

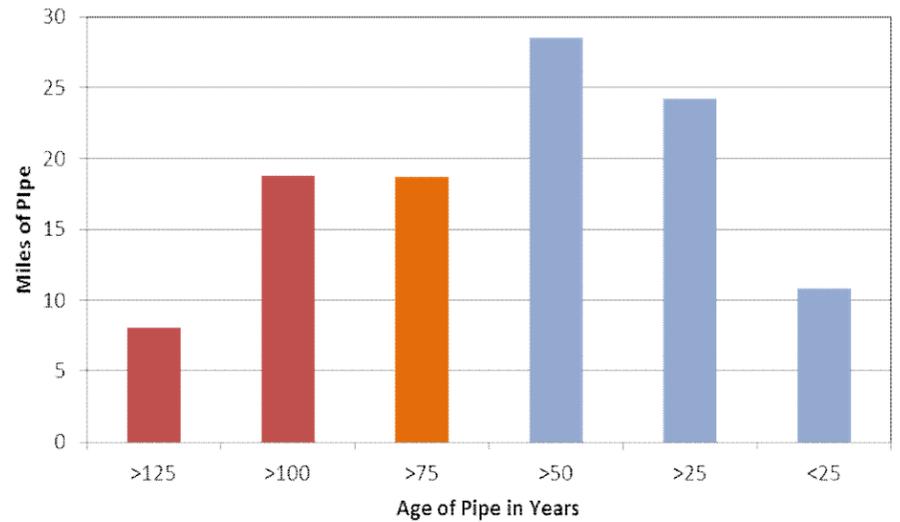
ENHANCED WATER DISTRIBUTION SYSTEM CAPITAL FUNDING IS NEEDED TO SUPPORT SUSTAINABLE ROAD SURFACE INVESTMENTS PROPOSED AS PART OF THE GENERAL OBLIGATION BOND AND SUSTAINABLE WATER SYSTEM REINVESTMENT

The system of water mains or pipes (distribution system) that delivers water from our water treatment plant to Burlington properties is very old and our current capital funding is not sufficient to address our near term (next 25 years) infrastructure deficit.

- The useful life of metal water pipes is 75-100 years depending on installation and soil conditions.
- An estimated 42% of our public water pipes are older than 75 years old, with almost 25% over 100
- To get on an average 88 year replacement schedule, we need to be spending ~\$2.3 M annually for the next 25 years
- FY 17 proposed distribution capital is \$1.262K total (including \$362K of Council Authorized Bonding)
- Not having sufficient funding means more instances of discolored water, reductions in fire protection flow and service disruptions due to main breaks which also impact our road surface system.



Water Main Length vs Age



Water main breaks and their resultant patches reduce the longevity of our pavement investment. Water pipes typically break due to a combination of age, corrosion, soil movement and pressure fluctuations—but the vibrations from paving machinery can also exacerbate weaknesses in the system. It is thus important that we renew any subsurface water main infrastructure with a higher consequence and risk of failure (criticality) BEFORE paving occurs to reduce the likelihood of breaks.



Examples of Streets with Water Main Breaks after Paving (since 2009)

- Howard
- Pine
- Scarff
- S. Champlain
- Industrial
- S. Prospect
- St. Louis
- St. Paul
- Henry
- Brookes
- Hayward
- College

The proposed borrowing for the November 2016 Revenue Bond vote provides for sufficient funding to address critical water main infrastructure on the FY18-FY21 paving program streets BEFORE the streets are paved (FY17-FY20) as well as to be able to renew critical water mains on our 30 year capital plan thereby beginning to reduce our infrastructure deficit. This funding will allow for both open trench water line replacement for certain streets and trenchless relining of eligible streets.

