



EMERGENCY REPAIR INFORMATION

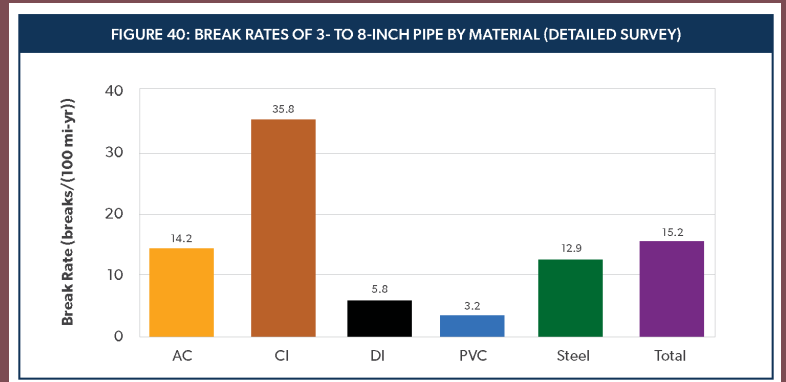
DIRECT COST COMPARISON

Budgeted Improvements

- Average construction cost per foot of utility main - \$500

Emergent Repairs

- Estimated construction cost per foot of utility main \$2,500

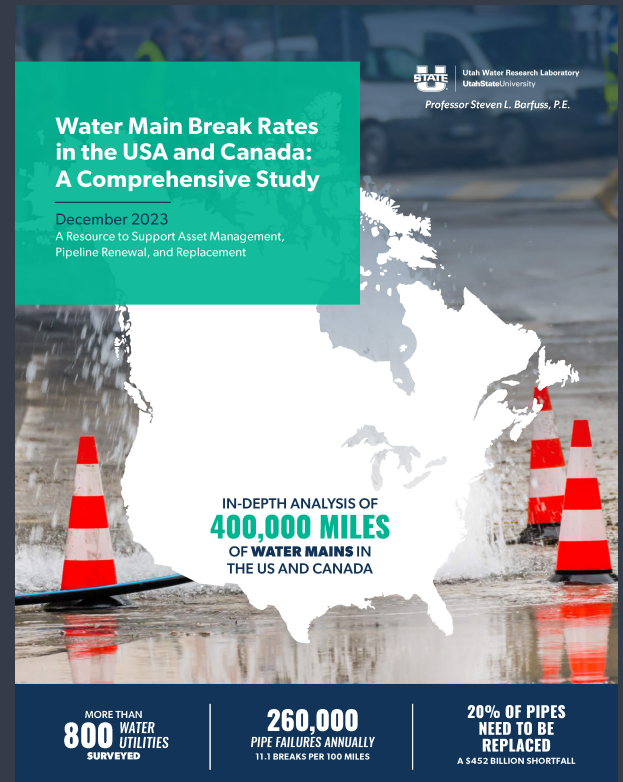


Emergency repairs are 5x more expensive $2500/500 = 5x$

WATER MAIN REPAIR & REPLACEMENT

STATISTICS* (Average \$10,000 per repair)

- The USA and Canada experience 260,000 water main breaks annually, representing \$2.6 billion in repair costs.
- In the USA, 11% of water is being lost due to leakage.
- 70% of utilities have a pipe replacement program.
- Water main break rates are significantly affected by pipe age, installation practices, and climate.
- The average age of failure for water mains is 53 years.
- There is a significant relationship between water main breaks and pipe material.
 - Break rates for cast iron water mains are more than 10x more likely than break rates for PVC water mains.
 - Break rates for asbestos cement water mains are 5x more likely than break rates for PVC water mains.



Barfuss, Steven L. (2023). *Water Main Break Rates in the USA and Canada: A Comprehensive Study*. Utah Water Research Laboratory & Utah State University.