

Institute for Regulatory Policy Studies

Investing in Infrastructure in the Water Industry



"People count on turning on the faucet and having clean water come out. Our nation's water infrastructure is reaching a tipping point."

Sen. Benjamin Cardin, (D-Md) Chairman of the subcommittee on water.



"When the well is dry, we know the worth of water"

Benjamin Franklin, 1746



Basic Water Information

- The United States utilizes about 40 billion gallons every day
- Approximately 53,000 drinking water systems operate in the United States
- Only 8 percent of these systems serve more than 80 percent of the population of the U.S.
- Water is arguably the most critical and the most undervalued of all utilities

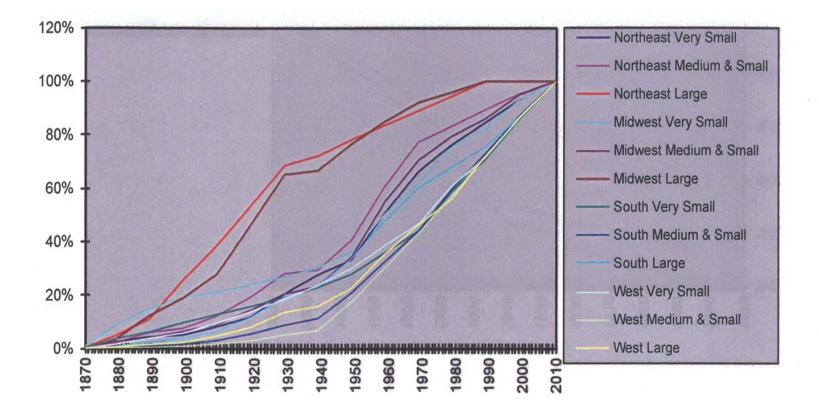


What is our problem?

- Our water systems are really, really old. Significant portions of our nation's water and wastewater systems are nearing, or are over 100 years old
- Estimated 7 billion gallons per day (about 20 percent) of our potable water is lost to leaks
- 250,000 water main breaks per year
- The government doesn't have the money to fix it



Infrastructure Age



Source: AWWA Buried No Longer



Infrastructure Age

120% Midwest Very Small Midwest Medium & Small 100% Midwest Large 80% 60% 40% 20% 1880 390 0% 1910 1920 1920 1950 1950 1980 1980 1990 2000 1920 1870 2000 2010

Proportion of Current System Built by Decade: Midwest

Source: AWWA Buried No Longer











Simple math

- American Water Works Association estimates that over \$2 trillion would be required to replace the buried water infrastructure in the US today. (\$486 billion in the midwest)
- At a 1 percent replacement rate (100 year life), we need to spend \$20 billion per year just to keep pace
- A large portion of our infrastructure is already more than 50 years old, significant portion is already over 100 years old
- We also have to spend for growth, treatment plant improvements/replacements, regulatory changes,



Infrastructure Age

Proportion of Current System Built by Decade: Midwest

Source: AWWA Buried No Longer



How did we get here?

- Inherited the systems paid for by our parents and grandparents
- Massive grant programs of the 70's and 80's
 - "... the result was that an entire generation grew up not understanding the true cost of water."

Steve Allbee, Project Director of USEPA Gap Analysis

• We have built a backlog

- Between 1997 and 2008 Congress appropriated \$9.5 billion to the State Revolving Fund program. Less than one year of the estimated spending gap at that time.
- Lack of political will to invest in capital and raise rates



What will it cost?

- \$600 billion by 2019 (U.S. General Accounting Office)
- \$1 trillion by 2035 (American Water Works Association)
- Historical spending shortfall of \$11 billion per year (American Society of Civil Engineers)
- Average water bills in the US will double, triple, or more.
 - Washington Post reported that average water and sewer bills went up 50% in the last five years.
 - Chicago is doubling water rates by 2015 to address distribution systems needs.
 - Water bills in Atlanta are up 233% since 2000.
 - Water bills in San Francisco are up 210% since 2000.
 - Utilities can no longer kick the can down the road or hide costs in other budgets.



What do we need to do?

- Educate the public on the issue and the true cost of water
- Stop hiding costs in taxes, fees, and other areas of our government and begin charging appropriate rates
- Develop aggressive plans to address the aging infrastructure
- Bring new capital into the business through bonds, public/private partnerships, and privatization



Why is water infrastructure so critical?

"You can't have jobs, you can't have businesses, homes, you can't have hotels if this infrastructure isn't in place."

Eric Goldstein, National Resource Defense Council