

North Jersey's aging water pipes pose costly dilemma

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When a 51-inch water main ruptured last August in Clifton, 40 million gallons of water flooded into a parking lot off Broad Street, temporarily closing nearby businesses, damaging property and leaving Clifton residents with limited water or water pressure for days. The main break sparked 30 other ruptures in the ensuing weeks, costing the water company more than \$250,000 in repairs and manpower, officials estimate.



*TARIQ ZEHAWI/STAFF PHOTOGRAPHER
A December water main break in Passaic
flooded roads and disrupted water service for
residents.*

The incident represents just one of an average 700 water main breaks that occur daily across the country, costing more than \$1 billion and wasting more than 7 billion gallons of water a day, water industry experts say. Repairing one water main break can cost from \$7,000 to \$150,000 depending on its size and location.

The answer, utility experts say, may entail higher consumer payments for water in order to build funds for the long-term repair and replacement of brittle pipes.

The problem stems in large part from the aging water delivery infrastructure, with pipes a century old in most of the U.S.

The Passaic Valley Water Commission's 620-mile system, which extends through parts of Passaic, Bergen, Essex, Morris and Hudson, is among the oldest in the nation, with water mains dating to the 1880s, said Joseph Bella, the commission's executive director.

The water commission works to prevent breakages by maintaining and cleaning lines, but ruptures have been on the rise, said Bella. In 2010, there were 138 breaks, compared with 107 in 2007.

"You're going to see major water main breaks at an increasing rate," said Wayne Klotz, past president of the American Society of Civil Engineers. "The water pipes underground are under high pressure and when you break one, it's catastrophic: You can end up with a giant hole in the middle of a major thoroughfare that disrupts mobility, it can flood homes and businesses, it's a huge waste of clean water, and it can put lives in danger, where people need to be rescued out of their cars from a flood of water by helicopter."

There's no cheap fix. The EPA's 2007 Drinking Water Infrastructure Needs Survey estimated that over the next 20 years, the infrastructure investment necessary to keep providing safe drinking water would be \$335 billion nationally.

"I don't think it's something we can ignore," said Fred Sickels of the state Division of Water Supply. "The older anything gets, its failure rate will increase."

Public utility officials are seeking a solution that may result in higher water rates for consumers to raise funds to replace antiquated pipes. Specifically, utility companies are lobbying for incremental rate increases of 2 to 5 percent on consumers' water bills to replace infrastructure. Meetings and public hearings are being held to discuss imposing the measure.

The American Water Works Association, based in Denver, is pushing for a federal infrastructure bank to fund large community projects with low-interest loans, said spokesman Greg Kail. The group wants water rates to reflect the full cost of service, including annual operation and maintenance expenses, capital costs and required reserves. For many utilities, that would require raising rates substantially, he said.

"We have to maintain it regularly to get the best performance and the longer we wait to make necessary repairs and replacements, the higher costs will be in the future," Kail said.

The state Board of Public Utilities in June may address the question of whether water companies can raise money to pay for preventive water main repairs, which are more cost-effective than making emergency repairs after pipes rupture, said Greg Reinert, a spokesman for the public utilities board. The board does not regulate municipal water authorities and has no jurisdiction over their rates, he said.

The initiative would affect all the regulated water companies, including United Water and American Water, but not PVWC, which operates separately.

The Passaic Valley Water Commission has its own board, which independently approves water rates increases.

Preventive repair involves replacing pipes at the end of their lives and could save more than half the cost of repairing a main break, Reinert said.

Dennis Ciemniecki, president of United Water in Harrington Park, which provides water to more than 60 communities in Bergen and Hudson counties, applauds the measure. He cited a 2007 assessment by the American Society of Civil Engineers that gave New Jersey a grade of a C.

Roughly 15 percent of the 2,200 miles of United Water piping is more than 100 years old, he said. For years, customers in older communities such as Fairview, North Bergen and Union City have endured water main breaks, service outages and discolored water because the old pipes need work, he said.

A planned approach is needed for replacing water infrastructure.

If utilities were permitted to impose a small increase capped at 5 percent, it could be used specifically for new infrastructure and would avoid higher repair costs later on, Ciemniecki said. "It's going to take some money to replace worn-out infrastructure that served us well for so many decades."