



North American Society for Trenchless Technology  
2007 No-Dig Conference & Exhibition



San Diego, California  
April 15-20, 2007

Paper C-2-04

## INNOVATIVE SOLUTIONS FOR WATER & SEWER ASSET MANAGEMENT PROGRAMS

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**ABSTRACT:** Population growth and development have overwhelmed expansion of collection systems across much of the U.S. Maintenance often has lagged as many cities still rely on water and sewer pipes that were put in the ground over a century ago. The federal government in 1980 pumped \$9.7 billion into water and sewer systems. Adjusted for inflation, that would be about \$22 billion today. But by fiscal 2002 EPA funding had dwindled to a trickle of \$2.2 billion a year.

"Collection systems are really stressed. Fixing them will be really costly," says Pervaiz Anwar, Director of Business Consulting for Brown and Caldwell. "The Federal government doesn't have the money. Neither do most utilities." Maximizing efficiencies and programming O&M in a systematic way is something that has been routinely done for over a decade in Australia and New Zealand, but only recently attempted in the United States.

A number of municipalities in the U.S. are implementing asset management programs to address the various regulations e.g. GASB-34, CMOM, and others. Some cities such as Newark, New Jersey; Seattle, Washington; and Atlanta, GA; have had great success implementing programs that have adopted innovative technologies and creative solutions to address funding gaps. While others such as Birmingham, AL, have stumbled. In Birmingham, AL, initial estimates pegged costs around \$1.2 million to implement a 1996 federal consent decree for rehabilitation of the regional system. But by 2004 the estimate was closer to \$3 billion, and sewer rates are likely to rise 12.5% a year for the next eight years.

This paper will present both successes and failures of asset management programs as related to water and sewer infrastructure from around the United States.