



Highlights of [GAO-08-687T](#), a testimony before the Subcommittee on Federal Workforce, Postal Service, and the District of Columbia, Committee on Oversight and Government Reform, U.S. House of Representatives

Why GAO Did This Study

The discovery in 2004 of lead contamination in the District of Columbia's drinking water resulted in an administrative order between the Environmental Protection Agency (EPA) and the District's Water and Sewer Authority (WASA), requiring WASA to take a number of corrective actions. WASA also took additional, longer-term measures, most notably a roughly \$400 million program to replace what may be 35,000 lead service lines in public space within its service area.

As in WASA's case, water utilities nationwide are under increasing pressure to make significant investments to upgrade aging and deteriorating infrastructures, improve security, serve a growing population, and meet new regulatory requirements.

In this context, GAO's testimony presents observations on (1) WASA's efforts to address lead contamination in light of its other pressing water infrastructure needs, and (2) the extent to which WASA's challenges are indicative of those facing water utilities nationwide.

To address these issues, GAO relied primarily on its 2005 and 2006 reports on lead contamination in drinking water, as well as other recent GAO reports examining the nation's water infrastructure needs and strategies to address these needs.

To view the full product, including the scope and methodology, click on [GAO-08-687T](#). For more information, contact John B. Stephenson at (202) 512-3841 or stephensonj@gao.gov.

DRINKING WATER

The District of Columbia and Communities Nationwide Face Serious Challenges in Their Efforts to Safeguard Water Supplies

What GAO Found

With the introduction of orthophosphate to its drinking water WASA has consistently tested below the federal action level for lead. However, WASA is reevaluating its roughly \$400 million, longer-term solution for replacement of what may be 35,000 lead service lines within its jurisdiction. In addition to the program's high cost, a key problem WASA faces is that, by law, it may only replace the portion of the service line that it owns; replacing the portion on private property is at the homeowner's discretion. Accordingly, WASA has been encouraging homeowners to participate in the program by replacing their own portion of the lead lines. Despite these efforts, however, homeowner replacement of lead service lines remains limited. Of the 14,260 lead service lines WASA replaced through the first quarter of fiscal year 2008, there were only 2,128 instances in which the homeowner participated in private side replacement. Many questions remain about the benefits of partial lead service line replacement. In fact, some research to date suggests that partial service line replacement results in (1) short-term spikes in lead levels immediately after partial replacement and (2) little long-term reduction in lead levels. WASA's dilemma over this program is taking place within the context of its other staggering infrastructure needs. Most notably, WASA is undertaking a \$2.2 billion effort to meet the terms of a consent decree with EPA requiring the utility to control its sewer overflow problems.

WASA's challenges in addressing its lead contamination problems and other infrastructure demands are mirrored across the country, where infrastructure needs are estimated to range from \$485 billion to nearly \$1.2 trillion nationwide over the next 20 years. In particular, many utilities have had difficulty in raising funds to repair, replace, or upgrade aging capital assets; comply with regulatory requirements; and expand capacity to meet increased demand. For example, based on a nationwide survey of several thousand drinking water and wastewater utilities, GAO reported in 2002 that 29 percent of the drinking water utilities and 41 percent of the wastewater utilities were not generating enough revenue from user rates and other local sources to cover their full cost of service. GAO also found that about one-third of the utilities (1) deferred maintenance because of insufficient funding, (2) had 20 percent or more of their pipelines nearing the end of their useful life, and (3) lacked basic plans for managing their capital assets. Other GAO work suggests that the nation's water utilities could more effectively manage their infrastructure at a time when huge investments are needed. In 2004, for example, GAO cited "comprehensive asset management" as one approach that could help utilities better identify and manage their infrastructure needs. While by no means a panacea to their fundamental fiscal challenges, water utilities can use comprehensive asset management to minimize the total cost of designing, acquiring, operating, maintaining, replacing, and disposing of capital assets over their useful lives, while achieving desired service levels.