Meeting the mandate for clean water: an evaluation of privately managed U.S. water and wastewater systems

Abstract:
Reliable provision of clean and safe drinking water is critical for public health, economic stability and growth in the United States. Due to a combination of financial, regulatory and operational challenges, however, it is becoming increasingly difficult for publicly owned and operated water utilities to provide affordable and safe water along with efficient service delivery. Since the 1980's, new actors have entered the U.S. water utility scene in the form of large international firms that specialize in water utility management, offering the opportunity to increase efficiency, expedite long-delayed maintenance, minimize rate increases and provide needed capital for system expansion. Private management of water and wastewater systems, however, can have unintended and negative consequences on localities, including: * The loss of employment and pensions for the municipal utility work force; * Higher water rates because private firms charge full cost, must pay taxes and earn a profit; * Surrender of local control over ratemaking and other financial issues to state public utility commissions; * Loss of municipal control of daily operations and the setting of service standards, as well as loss of control over planning for long-term growth and economic development.(cont.) The intent of this thesis is to evaluate the effects of adopting long-term operations and management contracts for water and wastewater services in three U.S. cities. The central assertion of this thesis is that such contracts between municipal governments and private water and wastewater providers are financially risky endeavors that invite labor disputes, generate municipal budget conflicts, threaten water quality and undercut the reliability of customer service. Evidence from the three cities examined also suggests that the risks (i.e., increases in the number of violations of water quality standards, decreases in actual preventative maintenance and lower-than-expected financial savings) outweigh the presumed returns offered by long-term contracts with provide providers (namely financial savings, improvements in customer service, and improvements in water quality). Finally, this study also examines the concept of competitiveness in water utility management and explores opportunities for public utilities to identify and implement operational improvements without actually privatizing any aspects of network operations and maintenance.

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Managing wastewater is intrinsically linked to management of the entire water chain. It is essential that wastewater management is considered as part of integrated, ecosystem-based management that operates across sectors and borders, freshwater and marine. How we use and reuse water is the key to successfully meeting the vast water requirements of an urban population twice its current size, expanding agriculture to feed another three billion people and satisfy rising demand for meat. Finding solutions needs to draw on a cocktail of existing and new policy approaches and funding mechanisms. These systems can be designed to use no water or very little water and can be managed by households or communities. Private management of water and wastewater systems, however, can have unintended and negative consequences on localities, including: * The loss of employment and pensions for the municipal utility work force; * Higher water rates because private firms charge full cost, must pay taxes and earn a profit; * Surrender of local control over ratemaking and other financial issues to state public utility commissions; * Loss of municipal control of daily operations and the setting of service standards, as well as loss of control over planning for long-term growth and economic development. (cont.) In addition, private water companies saw profitable opportunities in the ownership and operation of water utilities and began to promote their services. These conditions led city officials across the United States to consider the pros and cons of privatizing some or all components of their water supply and wastewater utility systems. This study will assess issues associated with various forms of ownership and operation of drinking water supply and wastewater systems in the United States, including strengths and weaknesses. TABLE 1-3 Community Water Systems in the United States by System Size and Ownership (estimated for 1999).