

## Water Is Life, and Infrastructure Makes It Happen

By Amy Santos

Imagine turning on the kitchen faucet one day and finding the tap dry. Or, finding the storm drain near the school playground bubbling over with raw sewage. For most of us, these are unthinkable scenarios. Yet across the country, many of our nation's water and wastewater systems — the very systems responsible for providing us with clean and safe water — are at or near the breaking point.

Aging pipes, water treatment facilities, sewer systems and wastewater treatment plants are or will soon be in need of repair or replacement in communities both large and small across the United States. The Congressional Budget Office estimates rural and urban systems currently lose 20 percent or more of the water they produce through leaks in their pipes.

Growing populations are overburdening systems originally designed to serve much smaller communities. New pollutants give rise to mandatory and costly compliance with environmental regulations.

There are more than 800,000 miles of water pipe in the United States and more than 600,000 miles of sewer line according to the U.S. General Accounting Office. The majority of this network was installed after World War II, and is at or near replacement age.

Many of the nation's water and wastewater treatment plants, some built in the early 1900s, are reaching the end of their useful lives as well. Infrastructure also includes natural solutions to managing and cleaning stormwater, such as constructed wetlands and retention ponds where plants and soil filter pollutants from street and building runoff. These "green" infrastructure systems can be overburdened as well and many need to be improved and expanded.

Water and wastewater utilities are spending millions of dollars each year to maintain current infrastructure that keeps water clean and safe for their communities. Utilities across the country are planning now to accommodate future growth and demands on their systems. Drinking water and wastewater utilities must plan to invest hundreds of billions of dollars in capital infrastructure over the next 20 years, according to estimates from the U.S. Environmental Protection Agency and the Congressional Budget Office. Nationally, the projected costs of revitalizing and expanding our water systems range from \$485 billion to nearly \$1.2 trillion. Each community will need to determine how to pay for these necessary improvements.

This is an important issue because water affects the quality of life in America. First, the availability of clean water is crucial to public health. The Centers for Disease Control and Prevention credit treatment of drinking water in the United States since 1900 for the virtual elimination of waterborne diseases such as typhoid, cholera and hepatitis, and for helping to increase life expectancy by 30 years.

Clean water is also essential for creating jobs and supporting the economy. Water is used in dozens of processes including fabrication, processing, washing and cooling in industries as varied as power generation, steel, mining, manufacturing and high technology.

Clean water supports a \$50 billion per year recreation industry, \$300 billion in coastal tourism, \$45 billion per year in seafood and fishing and all of U.S. agriculture. We all want to have clean water running through our local rivers, streams and lakes. Our ability to treat wastewater before it is returned to nature is vital to protecting our environment, including all the wildlife that depends on our rivers, streams, lakes and coastlines.

Clean water is important to all of us for public health, the economy and our environment. All can be compromised by failing to replace, enhance and expand our water and wastewater systems.

To meet the needs of our communities both today and in the future, we must invest in innovative solutions with new technologies to rebuild and expand these deteriorating water and wastewater systems. These investments are long term and expensive. That's why public officials and citizens must work together to make the health and safety of water a priority. This will not be an easy process, so we all need to pay attention and begin asking tough questions now.

The "Water Is Life and Infrastructure Makes It Happen" (WIL) public awareness and outreach program was developed by the Water Environment Federation (WEF) to help citizens across the country understand the importance of water infrastructure and the need for upgrades. The goal of the campaign is to start a dialogue between citizens and local officials to make clean, safe water a priority and to work together to find long-term solutions.

Recognizing that a concerted effort is needed to disseminate the program on a national level, WEF created the National Infrastructure Alliance, composed of water and wastewater organizations, the business community and environmental and public health professionals, to implement a multi-faceted public outreach program designed to inform and motivate opinion leaders, ratepayers, the public and elected officials to understand the important role of water infrastructure in a community's health, economy and environment, and to work together to find a solution. Intended to serve as the program's steering committee, the Alliance will foster buy-in and encourage a sustained, high-priority effort by providing opportunities to showcase the program.

WEF is working with seven "Pacesetter" Member Associations to roll out the WIL program and generate feedback. One of those "pacesetters" is the New York Water Environment Association (NYWEA), and in August 2006, NYWEA created the WIL Task Force to focus on the development of customized informational materials for elected officials, and to provide targeted public education to citizens, local funding decision makers, and the media. Two utilities in New York (the towns of Orangetown and Tonawanda) are working closely with WEF and the WIL Task Force as "pilot utilities" to customize the program for their communities.

The WIL Task Force developed a two-phase approach to implementing the WIL program in New York State. The first phase, targeting public officials, utility staff and funding decision-makers, is intended to raise awareness of the WIL campaign and encourage participation in the program. The implementation of this phase was successful in 2006, and will continue through 2007. The second phase will engage the general public, rate-payers and the media, and is planned to begin in late 2007.

The WIL campaign is steadily gaining momentum in New York State and across the country, and the benefits are clear. For hundreds of years, we have relied on water and wastewater infrastructure to protect the well being of our communities. Failure to inform the public of the need to reinvest today could reverse decades of progress in public health, environmental protection, economic development and quality of life. The time to act is now.

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