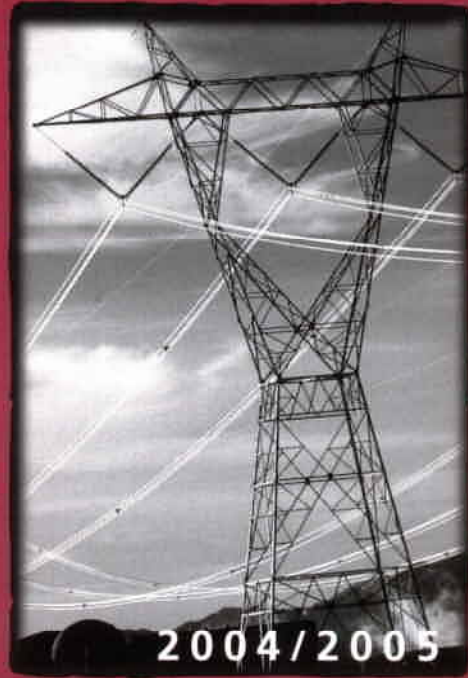


International Power & Utilities Finance Review



A EUROWOMEN PUBLICATION

Dealing with deteriorating US water and wastewater infrastructure

by Ken Kirk, Chair, Water Infrastructure Network

This article describes efforts of the Water Infrastructure Network (WIN) to establish a consensus on, and develop viable solutions to the water and wastewater infrastructure funding gap that faces the US and which is currently in the hundreds of billions of dollars. Critically, this funding gap poses a major threat to the nation's public health, environmental well-being and its economy. This article also provides recommendations to overcome the funding shortfall and explains why a federal recommitment to clean and safe water funding is necessary to remedy this growing problem.

What is the Water Infrastructure Network?

WIN is a broad-based coalition of local elected officials, drinking water and wastewater service providers, state environmental and health administrators, engineers, labour organisations and environmentalists dedicated to preserving and protecting the health, environmental and economic gains that US drinking water and wastewater infrastructure provides. A complete list of coalition members and other key information is available at www.win-water.org.

WIN was founded in 1999 with the overarching goals of educating the public and the nation's legislators on, and to secure funding for, drinking water and wastewater infrastructure in the US. WIN has since grown to nearly 50 member organisations. WIN was instrumental in forming the Water Infrastructure Caucus (WIC) – a coalition of members of the House of Representatives created to address the nation's water infrastructure funding challenge. Four congressional leaders established the Caucus in April 2002, Michael Bilirakis (R-FL), Sherrod Brown (D-OH), Sherwood Boehlert (R-NY), and Robert Borski (D-PA). Since its inception, the WIC has grown to over 80 Congressional members.

Recognising the existence of a funding gap in the US water and wastewater infrastructure sector, WIN set out to establish a long-term funding source to combat this problem.

Consensus on the funding gap

In April 2000, WIN released *Clean and Safe Water for the 21st Century; A Renewed National Commitment to Water and Wastewater Infrastructure*, documenting that while the US has made significant improvements in water quality and public health due in large part to prior federal investments in water and wastewater

infrastructure, an unprecedented financial problem was looming. Over the next 20 years, US water and wastewater systems face a US\$23bn a year shortfall to meet the national environmental and public health priorities set out in the Clean Water Act and Safe Drinking Water Act and to replace aging and failing infrastructure. Of this total, drinking water systems account for US\$11bn a year and wastewater systems account for US\$12bn a year.

This level of investment is unprecedented in the infrastructure arena and faces significant competition within local, state and federal budgets. At the local level, operation and maintenance costs are escalating by 6% a year above the rate of inflation, while federal contributions have been virtually zeroed out. When the Clean Water Act was enacted in 1971 and the Construction Grants Programme hit its stride, the federal government was contributing nearly 95% of the funding to wastewater infrastructure. Since the early 1980s, the federal government contributions have declined to under 5% of total wastewater infrastructure funding, and this funding is primarily through loans, not grants, to the state clean water revolving loan funds.

Reasons for federal re-commitment

WIN reports set out many reasons for increased federal funding to solve the growing funding gap, from fundamental economic factors, to the fact that our rivers, lakes and streams are national goods that transcend local and state boundaries. As stated in the *2001 Water Infrastructure Now Report*, clean water supports a US\$50bn a year water-based recreation industry, at least US\$300bn a year in coastal tourism, a US\$45bn annual commercial fishing and shell fishing industry, and hundreds of billions of dollars a year in basic manufacturing that relies on clean water. Clean rivers, lakes, and coastlines attract investment in local communities

and increase land values on or near the water, which, in turn, creates jobs, adds incremental tax base, and increases income and property tax revenue to local, state, and the federal government.

WIN has documented the compelling needs of water and wastewater utilities that substantially exceed current investment levels. If we do nothing, the US can expect increased threats to public health, environmental degradation, and real economic losses. At times and in places, these threats will be small and barely noticeable, but over the next two decades, and even more quickly in some locations, losses will mount and solutions will rapidly become financially unmanageable if action is not taken now.

Recommendations

WIN has recommended a series of actions to strengthen the partnership among governments at the local, state, and federal levels and between public and private participants in the water and wastewater infrastructure community. In its *WINow Report* the Water Infrastructure Network recommends that Congress pass and the President sign and budget for new legislation to finance clean and safe water for the US that:

1. Creates a long-term, sustainable, and reliable source of federal funding for clean and safe water.
2. Authorises capitalisation of the next generation of state financing authorities to distribute funds in fiscally responsible and flexible ways, including grants, loans, loan subsidies, and credit assistance.
3. Focuses on critical 'core' water and wastewater infrastructure needs and nonpoint source pollution.
4. Streamlines federal administration of the funding programme and encourages continuous improvement in programme administration at both the federal and state levels.
5. Adequately finances strong state programmes to implement the Clean Water Act and the Safe Drinking Water Act.
6. Establishes a new programme for clean and safe water technology and management innovation to reduce infrastructure costs, prolong the life of US water and wastewater assets, and improve the productivity of utility enterprises.
7. Provides expanded, targeted technical assistance to communities most in need.

Federal agency support

The Environmental Protection Agency (EPA) and other federal agencies have confirmed the findings of WIN on the infrastructure funding shortfall for water and wastewater. EPA and the Congressional

Budget Office (CBO) have released reports, with similarly striking financial data.

Specifically, EPA conducted a study and released a report entitled, *The Clean Water and Drinking Water Infrastructure Gap Analysis*, to gain a better understanding of the future challenges facing the clean water and drinking water industries. The report found that estimates of capital for clean water from 2000 to 2019 range from US\$331bn to US\$450bn with a midpoint of US\$388bn, while estimates for drinking water ranged from US\$154bn to US\$446bn over the same period.

The Congressional Budget Office (CBO) also has conducted a review of the infrastructure funding shortfall, *Future Investment in Drinking Water and Wastewater Infrastructure*. In its study, the CBO presents its estimates of future costs for water infrastructure under different economic scenarios – a low-cost case and a high-cost case – and discusses broad policy options for the federal government. "CBO estimates that for the years 2000 to 2019, annual costs for investment will average between US\$11.6bn and US\$20.1bn for drinking water systems and between US\$13.0bn and US\$20.9bn for wastewater systems." In short, the federal government agrees there is an enormous problem. The key remaining question is what must we do about it?

Solutions

Since its inception, WIN has been focused on creating a sustainable funding source for the failing water and wastewater infrastructure in this country. Suggested solutions from WIN to the problem extend to both the long-term, general revenue or a national trust fund, and short-term approaches, such as supporting legislation in the US Senate and House of Representatives that authorises increased funding for the growing infrastructure funding gap through grants for wastewater treatment works. Ultimately, both long-term and short-term goals will need to be met to overcome the huge financial burden that comes with replacing US aging water and wastewater infrastructure. Finding a remedy to the infrastructure funding shortfall has not been an easy process and WIN has welcomed solutions offered by its members.

Given the unique nature of the funding gap for wastewater infrastructure, which is heightened by the host of unfunded federal regulations under the Clean Water Act, the Association of Metropolitan Sewerage Agencies (AMSA), a member and co-founder of WIN, has conducted its own studies and surveys on the infrastructure funding shortfall as well as being involved in several public relations activities.

AMSA's Wastewater Infrastructure Funding Task Force has released a report, entitled *National Clean Water Trust Fund: Principles for Efficient and Effective Design*. The Report examines why, and in what form, a national clean water trust fund would be appropriate to help finance local investments in wastewater infrastructure. The *National Clean Water Trust Fund* report examines the rationale for a federal trust fund, lays out criteria that might reasonably be used to evaluate alternative funding sources, and categorises viable sources for a clean water trust fund. Although the *Report* does not recommend or seek support for any specific funding source, it describes, in detail, four potential approaches to help overcome the funding gap: Polluter Pays (industries that depend directly on wastewater treatment services pay into the fund); Beneficiary Pays (those entities and individuals who benefit the most from wastewater treatment services pay into the fund); the Nation as a Whole Pays (the benefits of clean water accrue to everyone and everyone should pay to ensure this public good); and Specific Groups of Users Pay (funding would be obtained from activities deemed 'societal bads' — often called a 'sin tax').

AMSA has also commissioned Frank Luntz, a renowned pollster and communications expert, to conduct focus groups and a survey/poll to evaluate the US people's support of federal funding for clean and safe water infrastructure.

Despite the much publicised expanding federal deficit, an overwhelming majority of Americans — 84% — would support legislation in the US Congress that would create a long-term, sustainable and reliable source of federal funding for clean and safe water infrastructure. A solid majority of Americans — 61% — believe that safe and clean water is a *right*, not a privilege. 70% said they believed clean and safe water infrastructure funding was a federal responsibility and only 30% believed funding for clean and safe water was solely a local responsibility. Additionally, 70% of Americans would support a 1% tax increase if they knew that every penny of that money would be dedicated to establishing and preserving a safe and clean water infrastructure in their area.

As evident by these statistics, the American people undoubtedly support a dedicated national clean and safe water infrastructure funding source.

The American Society of Civil Engineers (ASCE), also a member of WIN, released its *2003 Progress Report for America's Infrastructure* detailing the progress of twelve key infrastructure areas, including wastewater treatment infrastructure. The report reveals that drinking water and wastewater infrastructure in the US has declined since 2001,

receiving a grade of D or 'poor' in the 2003 update of the *Report Card*. Along with the sub-par grade, ASCE cited the need for an estimated US\$12bn per year investment over the next five years to secure and upgrade public wastewater infrastructure and an US\$11bn investment per year over the same time period for drinking water. The findings in the *ASCE Report* support the urgent need for bipartisan federal legislation that provides a long-term, sustainable solution to the nation's wastewater infrastructure funding shortfall.

WIN itself has successfully reached out to the media by supporting press events, disseminating press releases, and speaking out on national radio and television programmes. William Schatz, General Counsel, Northeast Ohio Regional Sewer District, Cleveland, Ohio, appeared on CNN's *Lou Dobbs Tonight* on behalf of WIN and re-emphasised the need for long-term, sustainable funding for the nation's clean and safe water infrastructure. WIN members have also engaged in grassroots work with their local media outlets encouraging them to publish articles on the need for funding to upgrade the nation's water and wastewater infrastructure.

Current federal legislation

There is ample precedent for, and clear economic need supporting, a strong federal role in funding water and wastewater infrastructure. The importance of wastewater infrastructure was well understood in the 1960s as the nation watched the quality of its waters decline precipitously and chose, in the 1971 Clean Water Act, to spend federal tax dollars to reverse the trend.

Despite increasing federal mandates for cleaner water and safer drinking water, despite shifts in population that strand water and wastewater assets in urban core cities with few ways to pay for needed improvements, and despite the nearly universal need to replace billions of dollars in aging and failing water distribution and wastewater collection systems, the federal contribution to water and wastewater continues to decline.

Water and wastewater systems share the same characteristics as other infrastructure systems that have established federal trust funds to assure continuous funding to meet ever-changing needs, yet water and wastewater infrastructure continue to go unfunded by the federal government. Federal solutions such as grants, a dedicated Clean Water Trust Fund, or other forms of targeted assistance make sound economic sense.

WIN is supporting several pieces of legislation in the 108th Congress that would provide increased funding for the growing infrastructure funding gap.

The *Clean Water Infrastructure Financing Act of 2003*, H.R. 20, which was introduced by Representatives Sue Kelly (R-NY) and Ann Tauscher (D-CA) and received over 150 co-sponsors, would amend the Federal Water Pollution Control Act to authorise appropriations for State water pollution control revolving funds. Additional legislation in the House, H.R. 3930, the *Water Quality Financing Act of 2002* would authorise the EPA to make grants available to non-profit organisations to provide technical and information assistance to small treatment works, extend funding for state and interstate managed pollution control programmes and provide US\$20bn over five years in state revolving loan funds. WIN is also supportive of efforts in the Senate Environment and Public Works Committee (EPW) to develop a companion bill to H.R. 3930.

WIN is encouraged by the short-term efforts in the US Congress to address the infrastructure

funding gap; however, more work must be done to address the long-term needs.

Conclusion

WIN and its member organisations will continue to work to ensure that the federal government recommits to funding US water infrastructure. Recent events including Hurricane Isabel, power outages in the Northeast, funding for Iraqi and Afghan infrastructure while domestic funding is ignored, as well as a renewed focus in the US Congress on infrastructure as a method to spur the nation's economy and job growth, have made it clear that such funding is necessary.

For more information on the infrastructure funding shortfall in the US, please visit the WIN website at <http://win-water.org/>, or call Ken Kirk, Executive Director of AMSA, at +1 202 833 2672.