

**Before the House Transportation and Infrastructure Committee
Subcommittee on Water Resources and Environment
Hearing on**

"Building a 21st Century Infrastructure for America: Water Stakeholders' Perspectives."

September 26, 2017

**Testimony of
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Chairman Graves, Ranking Member Napolitano, and members of the subcommittee:

Thank you for the opportunity to testify about an issue vital to our nation's health, economy and security. Water is our most precious resource, one that is essential to human life and health. Access to water depends upon a reliable water infrastructure system and sanitary services that preserve, treat, and deliver safe drinking water to our nation's communities. For almost 200 years McWane, Inc. has proudly provided the building blocks for our nation's water infrastructure, supplying the pipe, valves, fittings and related products that transport clean water to communities and homes across the country and around the world. In the process we employ more than 6000 team members who work in 25 manufacturing facilities in fourteen states and nine other countries.

Despite its obvious importance, "out of sight, out of mind" best describes the nation's attitude toward water infrastructure. Potholes, train wrecks, and delayed flights are much more

visible; thus, transportation needs often crowd out our attention to water as a serious infrastructure need. But the reality is that much of America's drinking water, wastewater, and storm water infrastructure, including the more than one million miles of pipes beneath our streets, is nearing the end of its useful life and must be replaced. Many communities strain to maintain and operate their water treatment systems. According to the U.S. Census Bureau, nearly half a million U.S. households still do not have access to safe drinking water or a working toilet. As much as 25-30% of the treated water that goes into our distribution systems leaks into the ground as it flows through pipes installed as many as 150 years ago. Those losses not only squander a vital and sometimes scarce resource; they represent a massive waste of the energy and associated capital required to treat and pump that water. As much as 19% of our nation's electricity consumption and 30% of our natural gas consumption is related to water treatment, pumping, and recovery. The energy used to treat water that leaks into the ground is simply wasted, which in turn increases energy prices for consumers and greenhouse gas emissions associated with its production. And as noted in a Wall Street Journal article last week, the recent hurricanes in Florida, Texas and Puerto Rico also spotlighted two concerns: the vulnerability of our water systems to natural disasters and a problem that occurs regularly across the country: sewage overflows from overburdened and underfunded waste-water systems that are overwhelmed during major storm events.

Safe drinking water, a clean environment, jobs and vibrant local economies depend upon resilient and sustainable water and wastewater infrastructure. Federal capitalization grants during the 1970s and 1980s, and low-interest federal loans made since the 1990s (which cannot be used for operation and maintenance), have encouraged the build-out of our nation's

regionalized wastewater infrastructure, but have not provided for the maintenance and rehabilitation of those aging systems. In contrast, drinking water systems, particularly larger systems, have been built primarily on a community's rate base resulting in a much more fragmented industry centered around cities and towns. As a result, significant fragmentation in the drinking water sector (with more than 70,000 water and waste water systems), underpricing of water and sanitary services, and increased federal regulatory mandates with no commensurate federal financial support, the condition of the nation's water infrastructure in many parts of the Nation is in need of repair and renewal.

Compounding the problem, our shifting population brings significant growth to some areas of the country requiring larger pipe networks to provide water service, while population decreases in other areas deplete budgets necessary to sustain water systems built for larger customer bases.

Water is also a vital national security issue. U.S. security experts expect that within ten years, countries of strategic interest to the U.S. will face significant water challenges and more and more will come to the U.S. for expertise.

Over \$1 trillion is needed over the next 20 years to begin to rebuild and rehabilitate water systems. But every challenge presents an opportunity, and water infrastructure is no different. Investment in water infrastructure means more jobs: every \$1 billion invested in infrastructure creates or supports 28,500 jobs, and every dollar invested in water and wastewater infrastructure adds \$6.35 to the national economy. Moreover, the investment is largely self-sustaining. Studies have shown that with the increase in GDP, every dollar of water infrastructure investment generates \$1.35 in tax revenue to the federal government and \$.68 to state and local

governments, tax revenues to help pay for the investment. Water also offers a unifying opportunity to make progress at home, while also projecting American leadership and boosting exports of U.S. solutions, products, and services abroad.

Bringing these macro statistics down to the level where our company lives, building water infrastructure requires manufacturing capacity, and companies need market and funding certainty to ensure that investments in building that capacity will not be wasted. A long-term, high level of annual authorization for WIFIA and the DWSRF will provide that market signal and spur increased use of the capacity that already exists and, potentially, the development of even more capacity as the market dictates. The obvious benefit of this – and one that is top-of-mind for all of us – is that this will create good, family-supporting manufacturing jobs. But another benefit is that as American manufacturers ramp up production, they can harness economies of scale and that makes American products more affordable and more competitive. There are several ways that this program can be tweaked and improved, but in the end there is no substitute for a strong, long-term, stable funding stream.

But our water infrastructure challenges cannot and will not be solved simply by providing more federal funding. Rather, a fundamental shift away from the traditional approaches must occur, through a combination of new sources of funding and changed behavior through incentives, greater accountability, and improved governance.

For the past 9-10 months a group of prominent associations in the water and infrastructure sector have been working together to discuss and develop a set of ideas that could provide this positive and transformative change. The participants in these discussions include the spectrum of publicly- and privately-owned systems, rural and urban communities, and

drinking and wastewater systems, such as the American Water Works Association, the National Association of Clean Water Agencies, the American Public Works Association, the National Association of Water Companies, the U.S. Water Partnership, the American Metropolitan Water Association, the Water Environment Federation, Association of Regional Water Organizations, the American Public Works Association, and others. The Environmental Protection Agency and the White House Council for Environmental Quality have also been consulted. The ideas that I will outline today reflect the results of those discussions. While not all of the groups I mentioned have formally endorsed everything that I will discuss, all have had input and I think it safe to say that the vast majority of these topics enjoy their unanimous support.

The package of ideas this group has discussed are broadly organized around three areas: (1) removing barriers to investment and better management; (2) funding; and (3) innovation. I will discuss each in turn.

I. **Remove Barriers To Investment And Achieving Effective Scale In The Delivery Of Water And Wastewater Service, And Improve Operational Performance.**

As I noted previously, water and wastewater services in the United States are delivered by more than 53,000 entities, over 80% of which serve fewer than 10,000 customers. In fact, a large segment of these small utilities serve as few as several hundred households. With such a limited service and rate base, these small operators cannot achieve the scale of operations and expertise necessary to meet the regulatory, operational, technical and financial challenges they face. As a result, thousands of such small systems struggle to maintain and replace their antiquated systems and meet even minimal performance and health-based standards, and frequently fall into significant non-compliance (SNC) status with EPA. These and other systems should be

incentivized to enter into voluntary partnerships with other entities who can help them scale up to develop the necessary financial, operational and technical capacity to operate and maintain these systems. There are many paths to such partnering arrangements, including public-to-public, public-to-private, private-to-private, and public-to-private partnerships, concessions, operating agreements, peer-to-peer, or consolidation or regionalization of assets or services. Let me emphasize, nothing I say today should be construed as favoring one path over another. All paths should remain available at the discretion of the local entity, but partnerships or consolidation should be encouraged by, among other things:

- *More financial incentives.* The SRF's could be amended to provide set asides and expand SRF funding exclusively to fund partnerships and consolidation. For example, California currently provides up to \$5M for systems that wish to explore and implement consolidation.
- *A regulatory safe harbor to the acquirer or partner.* Frequently, the risk inheriting legacy regulatory and other liabilities arising from past non-compliance discourages potential partners. To encourage financially sound and well-managed water systems or other partners (public or private) to assist distressed systems, the government must provide some form of liability protection and enforcement forbearance except in the case of intentional misconduct. As an example, the new partner would be required to present a detailed plan to achieve compliance within a certain timeframe, and if the partner fulfills that plan it would enjoy a grace period from enforcement action during its implementation and liability protection upon completion.

- *Remove debt defeasance penalty.* A simple way to accelerate partnering and private investment is the elimination of the need to “defease” public bonds as a result of a merger, asset purchase or grant of a concession. Current regulations discourage many municipalities from entering into cost-saving and efficiency-driven partnerships with private water companies for the operation of municipal water supply and treatment facilities. Specifically, IRS regulations impose a significant financial penalty on municipalities who sell or lease their water system to a private company if it was originally financed with tax-exempt debt, adding up to 15-20% of the total value of the transaction. Removing tax inefficiencies for lease and sale of municipal water systems will provide greater options and opportunities for communities to attract more private investment and expertise to rehabilitate and restore failing water infrastructure.
- *Encourage Effective Utility Management (EUM) and best practices, including full-cost accounting.* To succeed, every utility must have an accurate understanding of their financial condition, including the cost of providing water and waste water services. Potential partners will also require such information before committing their capital and resources to the rehabilitation of a failing utility. A recent survey found that only one-third of water utilities operate under rate structures that fully cover their costs. This undervaluation of water as a commodity creates severe constraints on the ability of utilities to finance their operations or outside investment.

A number of major water and wastewater associations (AMWA, NAWC, NACWA, AWWA, WEF, WERF, WRF, ASDWA and ACWA) and EPA have endorsed the ten attributes

of Effective Utility Management¹, one of which is financial viability. Financial viability includes an understanding of the full life-cycle cost of utility operations and value of water resources. Current SRF funding eligibility is contingent upon the preparation of a plan of financial viability, including managing accounts in accordance with accepted accounting procedures. However, too often this financial viability requirement is not enforced with SRF loans and grants. These accounting requirements should be enforced such that applicants for federal support are required to assess the total costs associated with constructing, operating, and maintaining their water, wastewater and storm water systems, including long-term capital costs. Moreover, this information must be made more transparent and readily available for public review.

II. Provide More Federal Funding Through The State Revolving Funds, The Water Infrastructure Financing Innovation Act (WIFIA), Private Activity Bonds, And Technical Assistance.

The Clean Water State Revolving Fund (DWSRF), the Drinking Water SRF, and the Water Infrastructure Finance and Innovation Act (WIFIA) Program play key roles in delivering investment efficiently to communities throughout the nation. WIFIA, a relatively new program, has created great opportunities for leveraging federal funds to incent private capital to finance large projects. However, the amounts authorized and appropriated to those programs fall short of the need.

¹ Effective Utility Management, A Primer for Water & Wastewater Utilities, <http://dev.watereum.org/wp-content/uploads/2017/04/Effective-Utility-Management-A-Primer-for-Water-and-Wastewater-Utilities.pdf>

- *Increase WIFIA funding from its current level of \$20M to its authorized level of \$45M.*

WIFIA is emerging as an extremely effective and cost-effective tool for addressing financing needs in the water sector. WIFIA funds 49% of a project's cost, and the balance must come from a non-federal share. As a result, it harnesses the power of leveraging the federal component with private investment. When used to provide credit enhancements, every dollar provided by WIFIA will generate \$65 in additional, private capital. Fully authorized, at \$45 million the WIFIA program would fund \$3 billion in infrastructure investment.
- *Increase annual capitalization of the SRFs.* The recommended levels: DWSRF at \$3 billion and CWSRF at \$3 billion.
- *Provide more technical assistance to small and rural systems.* In some cases, systems are so small or geographically isolated they have no viable partnership or consolidation options. In such cases, more technical assistance, in the form of peer-to-peer assistance and circuit-riders provided by neighboring utilities or third parties, can help those systems better manage their assets.
- *Remove tax-exempt water infrastructure private activity bonds from state volume caps.*

Congress should amend the Internal Revenue Code of 1986 to remove the volume cap for private activity bonds used to finance water and sewage facilities. These bonds are a form of tax-exempt financing for state and municipal governments that want to collaborate with a private entity to meet a public need. This partnership approach makes infrastructure repair and construction more affordable for municipalities and ultimately for users or customers, but the amount of such bonds that a state can issue is capped.

According to the Congressional Budget Office, over ten years this policy change could infuse \$50 billion in private capital investment at a cost of only \$354 million in lost tax revenue, increasing jobs, GDP, and tax revenues while solving a tremendous public need.

- *Retain Tax Exemptions for Municipal Bonds.* Tax-exempt municipal bonds are the primary means by which utilities and municipalities raise capital for water infrastructure projects. The market for these bonds provides an established, reliable, and efficient mechanism for public utilities to raise low cost capital. The tax-exempt feature of these bonds should be preserved in any tax reform measures adopted by Congress.
- *Expand eligibility of SRF loans to private water providers.* Interpreting the statutory language, EPA has long maintained that the Clean Water SRF is available only to the publicly owned utilities. Because the Drinking Water SRF contains different authorizing language EPA has determined that private water systems are eligible for Drinking Water SRF funds, but numerous states disallow such funds for private entities. This disparity prevents the private sector from leveraging federal investment to benefit the same communities (and rate payers) otherwise eligible for federal funds. Congress should amend both authorizing acts to allow private utilities access to the SRF's on a consistent basis.
- *Modernize and streamline the SRFs.* Eliminate federal/state application redundancies and streamline the application process and paperwork to make it easier for smaller systems to seek assistance.

III. **Accelerate the adoption of innovative technologies and improved management practices.**

Congress should encourage actions that will unleash America's know-how, strengthen the technical and managerial skills of our workforce, improve the efficiency and resiliency of our water systems, and promote the development, deployment, and diffusion of 21st century solutions throughout the United States and around the world.

- *Establish the National Water Test Bed Network.* There are countless innovative technologies waiting to come to market that could improve efficiency and drive down costs of water services. For example, wireless technology and new sensing and metering capabilities create opportunities for remote but inexpensive real-time flow and quality monitoring. Studies indicate that digital water networks can save utilities up to \$12.5 billion a year. However, due to the risk averse nature of municipalities and market barriers, such innovations are not being deployed quickly enough. To accelerate the deployment of these technologies requires a new approach to evaluate, demonstrate and approve innovative technologies. Unless utility operators have the confidence that new technologies will work, they are reluctant to adopt or deploy them. But few are willing to serve as the pilot program because of the demands on time and budget, and even those pilot programs that do proceed can take years to complete. As a result, the deployment of workable, cost-saving and efficiency-creating technologies is unnecessarily delayed.

Congress should authorize and fund the creation of a "National Water Infrastructure Test Bed Network" (TBN), to coordinate and accelerate the water industry's deployment of new technologies. It would bring together the broader water community

(i.e., regulators, operators, consulting engineers, etc.), and engage them in piloting and demonstration efforts to raise confidence in innovative technologies. The TBN's process would reduce the number of pilot projects otherwise needed and would also shorten the time needed to achieve commercial acceptance.

- *Establish a national program for collaboration and sharing of Best Practices.* A national program should be developed with a central focus on sharing best practices would enable urban and rural utilities, regardless of size, to share best practices, develop joint partnerships with public and private utilities, engage private sector expertise and technology and access private capital markets and funding. In addition, this network would provide small and distressed water systems with the technical capacity to comply with regulations and to undertake projects to improve or expand their services.
- *Develop a Water Workforce for the 21st Century.* Attracting and training the next generation of water and wastewater system operators is critically important, particularly for small and disadvantaged communities. Many water and wastewater utilities undertake the complex challenge of consistently delivering safe drinking water with a small and under-resourced staff with limited technical skills and training. Even large utilities will soon face loss of talented workers with the skills essential to the effective operation of their systems, and the introduction of new technologies will aggravate this problem because the operators of the future will need greater technological skills than are common today.

The Safe Drinking Water Act includes several set-asides related to operator certification and training for water systems from the funding authorized for the state

revolving funds. Congress should buttress that authority by tasking the U.S. Department of Labor with developing a workforce development program helping American workers get the skills and credentials needed to support the operation, maintenance, and improvement of water and wastewater systems of tomorrow.

- *Empower Local Decision Making.* For too long Washington has imposed unfunded, one-size-fits-all mandates that have increased burdens and costs on local utilities without regard to the diverse water and wastewater infrastructure needs of local communities, who must evaluate numerous factors when considering the proper design and materials for their community and water projects. Although Congress should hold communities accountable for results, they should encourage federal agencies to defer to local communities and their engineers of record in the means employed. Encouraging and supporting local governance allows those closest to the problem to determine the best solutions, which stimulates innovation and saves money as local communities can hold those in their community more accountable.

These ideas have all been discussed by the various water constituencies mentioned above, and with a few exceptions they are supported by all. But I should point out that to the extent the participants support this package, generally that support is the product of compromises and the resulting premise that the various components are linked. These compromises balance diverse political, historical, socio-economic, and practical realities and perspectives among publicly- and privately-owned systems, rural and urban communities, and drinking and wastewater systems. Those perspectives include the role and extent of federal

subsidies to support local water systems, unfunded federal mandates and the economic impact on small and rural communities, the role of private sector participation, market competition, accountability, standards setting affecting operations, and competition for limited federal resources at a time when needs are growing and resources are shrinking.

As an example, while full-cost pricing and effective utility management are prudent measures that virtually all agree upon, they are integrally tied to affordability, because many small and financially distressed communities simply cannot bear the full cost of water service or do not have the technical capacity to implement such an approach. However, all agree that good management necessarily includes a basic understanding of the full cost of providing water and sanitary service. A requirement for full-cost accounting for access to federal funding might serve as an appropriate interim reform, but many smaller or distressed utilities might still need assistance in preparing such an analysis. Therefore, for some groups support for full-cost accounting is contingent upon additional federal assistance and financial support for economically distressed and disadvantaged communities.

As another example, while there is broad recognition of the general value of private sector participation, lack of access to the SRF's is sometimes a barrier. Although allowing more private entities greater access to the SRFs would remove that barrier, it might also create greater demands for already limited SRF resources. Thus, public sector support for private sector participation is dependent upon private sector support for increased SRF funding.

Conclusion

These are only a few of the issues and solutions that merit discussion. The key takeaway, however, is that the scope and scale of America's water infrastructure needs demand a massive, coordinated, forward-thinking, and creative response. Water infrastructure is not a partisan or even a bi-partisan issue. It is and must be a non-partisan issue. With that cooperative spirit in mind, reform and reauthorization of Safe Drinking Water Act and Clean Water Act programs like the SRF's are crucial to that effort, and we at McWane are glad to have the opportunity to contribute to that process.

Thank you for your time and consideration.