WHITE PAPER

AMERICAN WATER

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Optimizing Water Infrastructure Investments

Introduction

In the U.S., water services are often so reliable that many of us do not think twice about what comes out of our faucets or what it's been through to become safe enough to drink. Our daily lives, communities and economy depend on functioning infrastructure. All across America, communities are faced with massive challenges to replace critical water and wastewater infrastructure, including treatment facilities and underground pipes.

With the latest results from the American Society of Civil Engineers (ASCE) Report Card for America's Infrastructure, it's clear the nation cannot ignore our deteriorating drinking water/wastewater infrastructure. ASCE recently gave the grades of D for water systems and D+ for wastewater systems. This remains in line with the last few reports, and heightens the sense of urgency to take actions that will turn around the condition of this often-overlooked category of infrastructure.

America's drinking water and wastewater sector is highly fragmented with over 50,000 community drinking water systems and nearly 15,000 community wastewater systems nationwide. The overwhelming majority are small systems, serving under 10,000 people. Their small scale and fragmentation results in a number of challenges, including difficulty in accessing capital, operational and procurement inefficiencies, and challenges in meeting EPA water quality standards.

When we talk about the aging infrastructure in our country, it's important to keep in mind that upgrading the vast and complex systems is not the sole responsibility of any one group, organization or entity. We know that no sector, whether public or private, can solve the nation's water challenges on its own.

Proposed Solutions

The positive news is that dedicated supporters in the water industry, non-profit, and government sectors are working together to implement viable solutions to the water infrastructure crisis, which will address immediate concerns as well as long-term issues. The more parties involved in collaborative problem-solving, the greater the changes that can be made.

As federal lawmakers examine how to address the country's infrastructure challenges, a new report commissioned by the National Association of Water Companies (NAWC) highlights a range of opportunities to bolster water infrastructure investment in communities across the U.S.

The study, prepared by PricewaterhouseCoopers (PwC), indicates that key changes to the water regulatory framework could create a more favorable environment for investment and generate:

- $43 billion of incremental spend on drinking water infrastructure in the U.S. over a ten-year period,
- An additional $15 billion–$25 billion in private wastewater infrastructure investment,
- A potential $20 billion generated from public-private partnerships, and
- The deployment of more modern and reliable water service to millions of Americans.

The federal government could incentivize communities to seek partnerships with larger regional operators (private or public) as an economically-preferred option for offering community water and sewer service. Without imposing a "mandate" or increasing the regulatory burden, federal policy incentives could eliminate inefficiencies in the water sector through partnerships and regionalization.

The report finds that the current regulatory framework in many communities and states across the country fails to create the economic incentives needed to drive productive partnerships that leverage public resources and private sector expertise. As detailed in the study, such partnerships can have profound positive impacts on the communities that embrace them.

Removing these regulatory hurdles will require an embrace of innovative policy solutions, which, when implemented, will have numerous impacts, including:

• Encouraging regionalization in the water sector through the State Revolving Fund (SRF) programs. Incentives to award utility owners who choose to partner with another utility (public or private) should be strongly considered.

• Lifting the cap on private activity bonds (PAB), or exempt facility bonds. These bonds are a form of tax-exempt financing for state and municipal governments that engage the private sector to make infrastructure repair and construction more affordable.

• Eliminating the need to "defease" public bonds alongside an asset purchase. With a simple IRS interpretation change, municipal system acquisitions would improve the net proceeds municipalities receive when their systems are purchased or consolidated at their option.

• Expanding eligibility of the Clean Water State Revolving Fund (CWSRF) to all water service providers. While the Drinking Water State Revolving Fund is open to all water infrastructure utility investors, private water service providers are not eligible for the CWSRF.

• Incentivizing low-income water utility assistance programs, or enacting state legislation that allows for tiered pricing structures by offering grant rewards to support such programs.

Regionalization/Partnerships

The price tag for the critical upkeep and replacement of the nation's outdated water systems is at least $1 trillion over the next 25 years, per American Water Works Association estimates. While this financial challenge is significant, there are solutions, including public/private collaboration from companies like American Water. The company has put plans into action to upgrade its systems and infrastructure, investing more than $1 billion annually to ensure continued reliability.

These are investments that prove their value every day. From projects to replace water mains, pipelines, and hydrants, and the installation of advanced metering technology to help reduce water leaks, to enhanced treatment capabilities improving efficiency and reliability, the investments made ensure the company is well positioned to continue to meet customer needs in the communities that rely on them.

It is critical the public and private sectors come together to address our ongoing water infrastructure needs. By partnering, stakeholders can reduce the fiscal burden on balance sheets, transfer risks, and enable government agencies to focus on their top priority – ensuring their community's health and safety. State laws are an essential building block to expanding private investment in infrastructure, and partnerships with the private sector.

Understanding there are many competing demands for infrastructure resources, if we are to meet our nation's future needs and preserve our American quality of life, the public sector alone cannot

continue to cover the cost and absorb the risk of degrading infrastructure. While some categories of infrastructure may benefit more from direct federal investment, water and wastewater infrastructure is particularly conducive to leveraging private sector resources.

The private sector stands ready to partner and assist bringing necessary capital. In addition, the private sector can provide innovative solutions and valuable expertise that can save time, money and improve projects. One example of this is Fairview, Pennsylvania.

In late 2015, Fairview Township sold its wastewater system to Pennsylvania American Water for $16.8 million. This decision helped to pay off $21 million in existing sewer debt, avoided additional debt (approximated at $14 million), and allowed property taxes to be cut by 50 percent. Pennsylvania American Water is investing $13 million in capital improvements, as well as up to $1 million in reimbursement for the relocation of a sewer line. The system serves approximately 4,000 customers in Pennsylvania.

Additionally, Pennsylvania American Water provides regional solutions for water and wastewater needs in two of the fastest growing counties in the state. Since 1995, the company acquired numerous water and wastewater systems of various sizes, many in need of significant investment in systems' facilities.

Until the mid-1990s, water and wastewater services in Monroe and Pike counties were fragmented comprising small, independently operated companies that, in some cases, were managed by absentee owners. Many of the systems were unable to maintain compliance or make necessary improvements to aging infrastructure. Customers experienced service outages and were plagued by a lack of adequate source water supply.

Pennsylvania American Water's regional approach is especially important for communities looking for sustainable water quality and capacity solutions. All of the Monroe and Pike operations are managed regionally, with shared equipment, resources and experienced management and personnel. This approach to public-private partnership delivers many benefits to customers, from better quality and more reliable service to stabilized rates and proactive investments in water and wastewater systems.

Lift Caps on Private Activity Bonds

Aging and deteriorating public water systems threaten economic vitality and public health. Tax incentives such as exempt facility bonds would encourage private capital investment, create jobs and provide more affordable financing for water infrastructure, which in many cities is beyond or nearing the end of its lifecycle.

An effective financing tool of the federal government for long-term, capital-intensive infrastructure projects is the private activity bond (PAB) or exempt facility bond. These bonds are a form of tax-exempt financing for state and municipal governments that want to partner with a private entity to meet a public need. The partnership approach makes infrastructure repair and construction more affordable for municipalities and ultimately for users or customers.

Exempt facility bonds utilize private capital instead of public debt and shifts the risk and long-term debt from the municipality to the private partner. In addition, the tax-exempt bond provides lower cost financing, which translates to lower costs for the customer.

Section 146 of the Internal Revenue Code limits the amount of tax-exempt private activity bond debt that may be issued annually in a state. Historically, most of the tax-exempt funding has been allocated to politically attractive, short-term projects such as housing and education loans. The annual volume cap hinders the use of PABs for water and wastewater infrastructure, which are generally multi-year projects.

Exceptions from the volume cap are currently provided for other governmentally owned facilities such as airports, ports, housing, high-speed intercity rail, and solid waste disposal sites.

Remove Debt Defeasance Penalty

Eliminating the need to defease public bonds removes the obligation of the issuer to repay the bonds, and thus reduces the risk undertaken by the purchase of municipal bonds.

Dispositions and other partnerships often begin years after a community has made a substantial investment of its own through the issuance of tax-exempt bonds. However, when a community seeks to transfer ownership or control of the water infrastructure to a private partner, IRS regulations require the private partner to undertake one of three "remedial actions" to preserve the tax-exempt status of the bonds.

Acceptable remedial actions include defeasance, reclassification as a private activity bond, or the re-investment of the proceeds in an approved alternate use.

Defeasance – Municipal bonds very often prohibit redemption for a period of years after issuance. When a transaction occurs within this window, the bonds must be defeased. This requires the private partner to purchase a large amount of low interest U.S. Treasuries to replicate the higher interest bonds' cash flow to the bondholders. This locks up capital in Treasuries that could otherwise be put to use in the community, resulting in up to 15% less cash from the deal going to the community. We have referred to this as the "defeasance penalty."

Private Activity Bond – A second possibility is to re-classify the bonds as private activity bonds (PAB), but the bonds must meet all the PAB requirements at the time of re-issuance. The IRS allows each state (and its communities) to issue a limited dollar amount of private activity bonds each year and there may not be sufficient room under a state's PAB volume cap at the time of the transaction.

Alternative Use – The third remedial action requires the community to reinvest the cash in an approved "alternative use" (generally new infrastructure) within two years.

Expand Eligibility on State Revolving Funds

CWSRF

With the passage of the 1987 amendments to the Federal Water Pollution Control Act (commonly referred to as the "Clean Water Act" or "CWA"), the U.S. Congress replaced the long-standing federal Construction Grants program with the Clean Water State Revolving Fund (CWSRF) program. The CWSRF program is available to fund a wide variety of water quality projects including all types of non-point source, watershed protection or restoration, and estuary management projects, as well as more traditional municipal wastewater treatment projects.

Since its inception the CWSRF Program has provided $68 billion to water pollution control projects and is widely viewed as a successful partnership between federal and State governments in addressing important environmental problems.

DWSRF

Similarly, the Safe Drinking Water Act, as amended in 1996, established the Drinking Water State Revolving Fund (DWSRF) to make funds available to all drinking water systems, regardless of ownership, to finance infrastructure improvements. The program emphasizes providing funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water.

Eligibility

There is a significant difference between the two revolving funds related to entities eligible to receive funding. Under current law, private water service providers are not eligible for the CWSRF. This disparity prevents private water and wastewater service providers from leveraging federal investment in wastewater with private capital and expertise. In addition, while private water service providers have been eligible under the DWSRF since 1994, a number of states do not allow their participation in the program. The availability and use of SRF low-interest loans promotes effective and viable water and wastewater systems and therefore, any unreasonable barriers to their full utilization should be removed.

Similar proposals have gained bipartisan support in previous iterations. On May 14, 2009, the Senate Environment and Public Works Committee passed S. 1005, the Water Infrastructure Financing Act, which would make investor-owned utilities completely eligible for all CWSRF assistance. Associations, such as The National Association of Regulatory Utility Commissioners (NARUC) previously have supported this provision.

Incentivize Low-Income Programs

Affordability Assistance Programs

Affordability assistance programs for financially distressed customers are already being implemented by responsible public and private water utilities.

For example, where approved by state authorities, American Water's state subsidiaries offer customer assistance programs to help financially challenged or disadvantaged households pay for water services. Programs vary by state and include assistance in the form of one-time emergency grants and/or ongoing service charge discounts. In some states, such as California, where a customer meets the program threshold, data is shared to enable other utilities to approach them with similar offers of assistance.

California American Water offers this program, H20 Help to Others, where eligible water and wastewater customers can apply for a monthly discount on their charges. Some highlights of the program include:

- Provides a 20% reduction on a customer bill's meter charge and quantity rate.
- Participating customers are not being billed the late payment charge.
- Program expenses (bill discounts) through end of 2014 were tracked in a Memorandum Account and are now recovered through the CEBA (Consolidated Expense Balancing Account) surcharge.
- Ongoing program costs (2015 forward) are tracked in a balancing account and recovered through a "Payment Assistance Surcharge" on all water and sewer customer bills (except for low income customer bills).
- Through the (commission mandated) Low Income Data Exchange program, the company exchanges (twice annually) lists of low income program participants with the energy utilities in its service areas and automatically sign up mutual water/energy customers (after an opt-out period) if they are already participating in the energy utility's low income program.

Unfortunately, these programs are not the norm as customers and communities continue to fall behind in necessary payments and investments. In a survey published in 2016, the U.S. EPA found that fewer than 30 percent of sampled utilities offered a customer assistance program. By tying SRF bonus payments to the use of rate assistance programs, the EPA could drive responsible utility management at the local level.

Federal Solution

A Low Income Sewer and Water Assistance Program (LISWAP) could use a statutory formula based on income, family size, and availability of resources to determine household eligibility; and then provide assistance to customers for their water utility bills. LISWAP aims to help low-income families pay for rising sewer and water bills caused by the pressing need for infrastructure investment.

A pilot program supporting such initiatives might provide incentives for such programs to grow throughout the country. Additional incentives could include amending the Clean Water SRF and the Drinking Water SRF programs to reward the implementation of such programs at the state and local levels.

Conclusion

There are ways to achieve efficiencies in the water sector. Innovative approaches including the bundling of assets and tax incentives; incentivizing low income assistance; lifting PABs volume cap; expanding CWSRF to private investment are all likely to encourage private investment for necessary infrastructure upkeep and construction.

Together, the public and private sectors can work together more closely to propel America's water and wastewater infrastructure into a more modern, technologically advanced, and integrated network that enables prosperity long into the future. Unfortunately, a number of barriers still exist which prevent the investment of private capital into U.S. water and wastewater infrastructure projects. As a result, America is leaving dollars on the table. Thus, the federal government's role in breaking down barriers and establishing the framework needed to unleash greater private investment is essential.

Reference:

National Association of Water Companies report, prepared by PricewaterhouseCoopers. 2017. http://www.nawc.org