



**American Water Works
Association**

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**Reinvestment and Rehabilitation
of Our Nation's Safe Drinking Water Delivery Systems**

**Presented by
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Good morning, Chairman Shimkus and members of the subcommittee. My name is John Donahue, and I am Chief Executive Officer of the North Park Public Water District, based in Machesney Park, Illinois. I also served as President of the American Water Works Association in 2014, on whose behalf I am speaking today. I deeply appreciate this opportunity to offer AWWA's input on reinvesting and rehabilitating our nation's drinking water infrastructure. As you will hear, having sound water infrastructure requires not only what we traditionally think of as water infrastructure – pipes and treatment plants – but involves additional issues, such as cybersecurity, protection of source waters, effective use of resources, and similar issues.

We have been among those leading the warnings that one of the most crucial challenges our country faces is renewal of our water systems and assuring high-quality drinking water for all Americans. As members of this subcommittee know, safe drinking water is vital to public health

protection, fire prevention, economic prosperity and our quality of life. Without adequate supplies of safe and affordable water and well-maintained systems to deliver it, no country can promise a brighter future for its citizens.

AWWA's 50,000 members represent the full spectrum of water utilities – small and large, rural and urban, municipal and investor-owned. From this diverse perspective, we would like to bring to the subcommittee's attention several issues, shared priorities and opportunities for collaboration. Working closely with Congress, we hope to stimulate reinvestment in water infrastructure, top-shelf cybersecurity, protection of source water, smart approaches to affordability, an efficient energy-water nexus and a focus on scientific integrity in our regulatory processes.

Water Infrastructure Investment = Economic Prosperity

The top priority facing our nation's drinking water and wastewater systems is financing the repairs, replacement and expansion necessary to support our communities and assure a vibrant economy.

Water infrastructure protects public health and the environment, supports local businesses, protects us from fires, and brings us a high quality of life. The Bureau of Economic Analysis (BEA) at the US Department of Commerce estimates that for every dollar spent on water infrastructure, \$2.63 is generated in the private economy. And for every job added in the water workforce, the BEA estimates that 3.68 jobs are added in the national economy.

AWWA estimates that approximately \$1 trillion dollars will be needed for the repair, replacement and expansion of existing drinking water distribution systems over the next two decades. This figure does not include the estimated \$30 billion that would be required to replace every lead service line in the U.S.

One innovative solution is a new credit program, the Water Infrastructure Finance and Innovation Act (WIFIA). We are hopeful that once it really gets running and fully funded, it can provide much-needed access to low-interest financing for larger water infrastructure projects or projects outside the scope of the state revolving funds. A WIFIA loan will support up to 49% of eligible project costs, which might also involve municipal bonds, cash financing, an SRF loan, and/or private capital. Just like in the already-successful transportation program called TIFIA, Congress only has to appropriate funds for the risk factor for loans. Historically, the default rate for water utilities nationwide is 0.04 percent.

Based on calculations from the Office of Management and Budget, Congressional appropriations could be leveraged at a ratio of about 60:1. For example, if the WIFIA program were to receive the fully authorized \$45 million for fiscal year 2018, it could provide well more than \$2 billion in loan money, which would amount to more than \$4 billion in infrastructure investment. This program provides an exceptional vehicle to stimulate the investments needed to sustain our nation's drinking water and wastewater infrastructure.

To finance the remaining 51% of the costs for a project receiving WIFIA assistance, a utility has several options, including tax-exempt private activity bonds. Congress provides states an annual allocation of federal tax-exempt private activity bonds, based upon population. In 2015, the state allocation or volume cap was the greater of \$100 per resident or \$301.52 million. Historically, most of the tax-exempt bonds have been issued to short-term projects such as housing and education loans.

The annual volume cap hinders the use of private activity bonds (PABs) for water and wastewater infrastructure, which are generally multi-year projects. On average, only 1% of exempt facility bonds are issued to water and wastewater projects annually.

Existing federal programs such as the Drinking Water State Revolving Fund (DWSRF) and Clean Water State Revolving Fund (CWSRF) are designed to provide community water and

wastewater systems access to lower-cost financing for infrastructure projects. We support robust funding for these very successful programs. Under the SRF programs, states make loans to a utility. The utility must repay this loan, and those funds are then lent to other communities, and so on. While the SRFs are excellent programs, their efficiency could be improved by working with stakeholders to streamline the approval process.

We realize that this next issue is outside the jurisdiction of this committee, but we would be remiss if we did not mention the need to preserve the tax-exempt status of municipal bonds as Congress considers comprehensive tax reform. More than 70 percent of U.S. water utilities use municipal bonds to help finance infrastructure improvements. They are a very effective tool for implementing the infrastructure needs for different communities. The decision to issue bonds is determined and approved by either the local residents through referenda or by their elected officials. State and local governments on average save about two percentage points on municipal bonds, which translates to substantial savings on projects. We also note that variations of public-private partnerships often utilize municipal bonds.

Recommendations for Congress

1. Make reinvestment in America's water and wastewater infrastructure a top national priority.
2. Provide fully authorized funding for the Water Infrastructure Finance Innovation Act (WIFIA) and at least \$1.8 billion for the drinking water SRF program.
3. Preserve the tax-exempt status of municipal bonds.
4. Eliminate the cap on private-activity bonds for financing water infrastructure projects to further promote necessary investments.

5. Reauthorize the Safe Drinking Water SRF program and take advantage of the opportunity to utilize lessons learned since its creation to make it more efficient, by doing the following:
 - a. Require quarterly instead of annual reports from states on the amount of unobligated SRF funds the states are holding. This would provide a clearer picture of how efficiently money is moving and which, if any, states need assistance in moving loans;
 - b. Provide for the redirection of large sums of unobligated SRF funds after a specified time period;
 - c. Make it clear in SRF authorization language that use of SRF loans for consolidation or regionalization of water systems to improve water service to a population does not violate the ban on the use of SRF assistance to accommodate growth;
 - d. Direct EPA to provide guidance to states to help make applications scalable to the size and scope of the project under consideration; and
 - e. Work with stakeholders to find areas in which administrative processes or requirements could be streamlined.

Cybersecurity for Critical Infrastructure

Continued advances in automation and information technologies have brought great economic advantages to many sectors. However, these capabilities have also introduced the specter of cyber- attacks, a new and faceless threat to individuals, businesses and the critical infrastructure upon which our economy depends. A punitive, compliance-based approach to cybersecurity that places the burden solely on prospective victims/targets of cybercrimes and attacks is ill-advised.

Responsibility for cybersecurity must be shared with technology providers to ensure that the systems to support infrastructure operations, to the extent possible, are not susceptible to attack. In addition, technical support programs are needed to help systems – particularly in small and medium-sized communities -- overcome the technical knowledge/skills gap associated with many of the security systems that have been deployed.

AWWA has been proud to develop a cybersecurity resource designed to provide actionable information for utility owner/operators based on their use of process control systems. That is the purpose and objective of the "Process Control System Security Guidance for the Water Sector" and the supporting on-line "Use-Case Tool." Both are free to water providers on our website. These resources have been recognized by the Water Sector Coordinating Council and EPA as the foundation of a voluntary, sector-specific approach for adopting the National Institute of Standards and Technology's (NIST's) Cybersecurity Framework.

The cyber threat requires ongoing public-private collaboration to develop solutions and mitigate risks facing critical infrastructure.

Recommendations for Congress and the Administration

1. Support a voluntary, collaborative approach to cybersecurity that recognizes the dynamic nature of the threats facing critical infrastructure, such as the existing work done with various sectors, including water, and NIST.
2. Expand support for aggressive investigation and prosecution of cyber attackers.
3. Enhance programs, such as the Industrial Control Systems Cyber Emergency Response Team (ICS-CERT), that can support and build the cyber risk management capacity of all critical infrastructure sectors and rapid information sharing for vulnerability mitigation protocols.

Source Water Protection

Protection and management of source waters are critical to the mission of any drinking water utility and the communities it serves. In reality, however, many drinking water systems have limited control over upstream activities that may present risks to water quality. The revised Toxic Substances Control Act (TSCA) does contain provisions for requiring consideration of impacts on drinking water sources for certain substances. This is an important step in developing programs that place high value on source waters. However, there are critical policy gaps that impede water utility consideration of prospective risks to source waters. These gaps are due to inadequate information-sharing policies and a lack of notification protocols to alert a utility of incidents that could impact a water supply. The chemical spill on the Elk River in West Virginia in 2014 illustrates the need for such notification and alerts.

In addition, improved collaboration between agriculture producers and water providers can have measurable results in reducing sediment and nutrient pollution. Nutrients from agricultural runoff do impact drinking water quality, as we saw in Toledo, Ohio, in 2014, when the water system had to be shut down.

The federal Farm Bill contains the largest funding source for agricultural land conservation efforts. Not only is robust funding needed for such efforts, but they need to be focused where they are achieving the greatest public good. One program within the Farm Bill conservation title in particular has the greatest promise for helping farmers and ranchers undertake effective nutrient management practices in critical watersheds: the Regional Conservation Partnership Program, created in the 2014 Farm Bill. In this program, USDA's Natural Resources Conservation Service, state agencies and non-governmental entities provide financial aid and technical assistance to farmers and ranchers to implement conservation practices that address higher-priority natural resource concerns. The 2014 Farm Bill authorized \$1.2 billion for RCPP over five years, but federal budget sequestrations are cutting into those authorized amounts.

Incentivizing upstream adoption of best management practices for nutrient management, along with structural and edge-of-field practices (e.g. riparian buffers, drainage water management, tile nutrient management), are important tools in managing source water quality.

Recommendations for Congress

1. Support the designation of drinking water utilities as “first responders” in various state and federal emergency response laws and regulations to facilitate information sharing with a clear “need-to-know” status.
2. Sustain and expand targeted programs, particularly the conservation programs in the Farm Bill, that support collaboration between agriculture producers and community water systems to improve source water quality. We realize the Farm Bill itself is outside the jurisdiction of this committee, but we seek your support in working with the agriculture committees on the conservation title, to help provide the American public with the best water possible.

Energy-Water Nexus

Drinking water and wastewater utilities use nearly 2% of electricity nationwide. Ultimately, the water and energy sector are deeply co-dependent, with most energy production requiring water and all water production/treatment requiring energy. Improving energy efficiency, energy management, and deployment of renewables within the water sector lowers costs and improves system resilience. This frees up more resources for infrastructure renewal and other priorities, leads to lower emissions, and assists states in meeting their energy goals. Collaborations with the Department of Energy have provided the water sector with key resources needed to improve efficiency and energy management.

Recommendations for Congress and the Administration

1. Support voluntary Department of Energy programs designed to assist the water sector, including continued expansion of the *Better Plants* program. Support initiation of a *Uniform Methods Project* for water utility energy efficiency.
2. Support the development of voluntary state energy programs for the water sector.

Affordability

The core mission of drinking water and wastewater systems is to protect public health and the environment. To accomplish this mission, these water systems must build and operate increasingly complex treatment systems to meet various statutory and regulatory requirements.

These systems must also be built and operated in a manner that is affordable to the local ratepayer.

Current affordability guidelines were developed in 1997 and are outdated. They rely on a single economic indicator – median household income – and have not been revised and updated to account for current economic circumstances. This is a major problem when the Department of Justice seeks to place a public utility and its community under a federal enforcement order. EPA's guidelines must be revised to include new affordability criteria that evaluate a much broader range of community affordability factors.

Studies done in collaboration with the U.S. Conference of Mayors have shown that some regulatory actions do not fully take into consideration the larger context of public health needs and benefits for a community. Since water and wastewater services are funded principally by local ratepayers, the collective burden from multiple regulatory actions should be considered in the whole, as they would be by the families and businesses that will be required to fund them. A

lack of integrated planning redirects constrained funding to address issues that may not generate the greatest public health benefit.

EPA's 2012 Integrated Planning Framework and related documents on affordability provided important new flexibilities for wastewater utilities to prioritize their regulatory obligations and infrastructure investments. However, more action is needed to institutionalize integrated planning in all aspects of EPA's interactions with water utilities, particularly in wastewater permitting. Integrated planning-based scheduling and sequencing must be available as an option for utilities to consider in all future National Pollutant Discharge Elimination System permits. However, integrated planning needs to be codified in the Clean Water Act (realizing this is outside the jurisdiction of this committee) and drinking water regulation needs to become a part of integrated planning as well.

AWWA was pleased to see that Rep. Bob Gibbs' reintroduced the Water Quality Improvement Act, H.R. 465, in the 115th Congress. Legislation like this bill would help put the integrated planning framework in statute for clean water mandates. However, this legislation only deals with clean water, and does not allow for integrated planning to fully acknowledge the cost implications of drinking water mandates. AWWA is committed to working with Mr. Gibbs, the House Subcommittee on Water Resources and Environment, and the Subcommittee on Environment to advance this legislation and eventually see it become law.

Recommendations for Congress

1. Integrated planning should account for the full cost placed on a community when considering drinking water and wastewater regulatory actions to ensure such decisions are not overly burdensome and thus undermine the very benefits sought.
2. Codify in federal law integrated planning for clean water and drinking water regulation.

Scientific Integrity and Transparency

A core tenet of the Safe Drinking Water Act and AWWA is adherence to sound science. This tenet is essential to ensure the integrity of the decision-making process, which must include rigorous public review and comment. This process admittedly appears slow and there is concern it results in too many regulatory delays. However, sound science requires a thorough, methodical, science-based evaluation of potential risks. AWWA believes greater investment in the necessary fundamental scientific research would mitigate the concerns about the length of time required to address risks, expedite decision-making and benefit public health.

In the absence of critical information, especially health effects data, agency actions can result in less-than-optimal decisions that may not serve the public interest. Decision-making based on limited information undermines the credibility of the process with the public and often results in costly diversions of limited financial resources. The absence of data and information can be overcome with appropriate budgetary support for research.

Recommendations for Congress

1. Support the deliberative, science-based regulatory processes outlined in the Safe Drinking Water Act to set health-protective standards for drinking water.
2. Authorize and appropriate funding to assist EPA in its evaluation of potential contaminants.

What is the American Water Works Association?

The American Water Works Association (AWWA) is an international, nonprofit, scientific and educational society dedicated to providing total water solutions and assuring the effective

management of water. Founded in 1881, the association is the largest organization of water professionals in the world.

Our membership includes more than 3,900 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our 50,000 members represent the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.

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