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April 17, 2017

The Honorable John Shimkus
Chair, Subcommittee on Environment
c/o Grace Appelbe
Legislative Clerk, Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Re: Questions for the Record following Hearing on Nation's Drinking Water Infrastructure

Dear Chair Shimkus:

Thank you for inviting me and the National Association of Water Companies (NAWC) to testify before the Subcommittee on Environment during its March 16, 2017 hearing entitled, "Reinvestment and Rehabilitation of Our Nation's Safe Drinking Water Delivery Systems."

We commend you and the Subcommittee for highlighting the challenges facing the country's drinking water systems and the solutions that will help ensure all Americans have safe, reliable, and high-quality water utility service for generations to come. California Water Service (Cal Water) and NAWC's other member companies stand ready, able, and willing to work with all levels of government to help overcome these challenges.

Enclosed you will find NAWC's responses to the additional questions for the record you submitted. If you have any questions, please do not hesitate to reach out to us. Likewise, it would be an honor to further assist the Subcommittee and Congress as you continue to work on the critical issues associated with the nation's water infrastructure.

Sincerely,

[redacted]

President & CEO

Enclosure

Answers to Questions for the Record Following a Hearing on the Nation's Drinking Water Infrastructure Conducted by the Subcommittee on Environment, House Energy and Commerce Committee

On March 16, 2017, the Subcommittee on Environment of the House Committee on Energy and Commerce convened a hearing entitled "Reinvestment and Rehabilitation of Our Nation's Safe Drinking Water Delivery Systems," at which Martin A. Kropelnicki, President & CEO of California Water Service Group and President of the National Association of Water Companies (NAWC), testified on behalf of NAWC about the ways the private water sector can help address the nation's drinking water infrastructure challenges. Chairman Shimkus submitted further questions for the record, and this document provides NAWC's responses.

The Honorable John Shimkus, Chairman Subcommittee on the Environment

Question: You mention in your testimony that "If we are to change the status quo, we must offer more "carrots and sticks" in the regulatory toolbox." The Safe Drinking Water Act already has provisions in it related to consolidation of systems. What do you think needs to change and can you give me a practical example of what you mean?

Since at least 1992, the U.S. Environmental Protection Agency (EPA) has discussed the concept of consolidation in the water utility sector.[1] Several decades later, there are still more than 50,000 community water systems in the U.S. and, according to the EPA's compliance database, in 2016, more than 1,500 of them were in significant noncompliance with the Safe Drinking Water Act.[2]

It is without question that these rates of noncompliance are unacceptable and unsustainable, especially considering that hundreds of billions of dollars will be needed over the next several decades to maintain and upgrade the nation's drinking water systems.[3] Doing more to encourage the consolidation of failing and noncompliant water systems is an important means to overcome both of these interrelated challenges.[4]

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[1] Environmental Protection Agency, "Helping Small Systems Comply with the Safe Drinking Water Act: The Role of Restructuring," September 1992, available at: http://bit.ly/2pfy0cG.

[2] Brent Fewell, "Encouraging Greater Compliance Requires a Change in the Status Quo," Journal AWWA, September 2016, p. 26, available at: http://bit.ly/2oc0XqJ.

[3] American Water Works Association, "Buried No Longer: Confronting America's Water Infrastructure Challenge," 2012, p. 3, available at: http://bit.ly/1xSHwAS.

[4] As used herein, "consolidation" refers to a process under which two or more water suppliers are combined under a single ownership and/or management structure. In those instances where a smaller water system is consolidated with a larger system, the marginal cost of water utility service is shared by a larger total customer base, which is likely to result in reduced water utility rates in the smaller water system.

Too frequently, though, consolidation is not prioritized, but rather viewed as a last resort. The situation faced by the community of West Goshen in Tulare County, California is a case in point. For years, the community dealt with ongoing water quality issues, including nitrate and bacterial contamination. In 2012, the community's wells failed. Even though one of NAWC's largest members, California Water Service (Cal Water), owns and operates a water system a little more than one mile away, the state provided emergency funding to fix the community's wells. Unfortunately, a short while after the emergency funding was received, a portion of the water system's pipes collapsed, and the residents were again without water. It was not until residents had sand flowing through their taps and were traveling to nearby towns to shower that the possibility of simply connecting the community to Cal Water's existing system was explored and ultimately chosen as the best solution. Cal Water worked with several non-profits, Tulare County, and the state to secure funding to install more than 8,500 feet of new water pipe from its existing system to West Goshen. Today, the residents enjoy safe, reliable, and high-quality water utility service. Had this option been pursued before the community's wells had collapsed – when it was *only* dealing with ongoing water quality issues – the residents of West Goshen would have avoided being without water for an extended period of time.

In addition to taking steps to ensure that consolidation or other partnership arrangements are being prioritized, Congress should consider providing legal 'safe harbor' for utilities that assume responsibility for failing and noncompliant water systems. The possibility of being held legally responsible for past noncompliance often serves as a poison pill to prospective new owners or operators, especially when the legal liabilities can range from the hundreds of thousands to millions of dollars. Ensuring that new owners or operators are not held liable for the misdeeds of others would do much to expand the use of consolidation and other partnership arrangements.

Finally, Congress should explore the possibility of creating a tax-based incentive for private water companies that enter into consolidation or partnership arrangements with noncompliant systems. In those cases where the noncompliant system is publicly owned, the federal government is already not receiving any income tax revenue from the water system. It may make sense to extend that income tax benefit to a private water company that assumes responsibility for the noncompliant system, either for a certain number of years or until the failing system is brought into compliance. In the short-term, such an incentive would be revenue neutral, and over the medium- and long-term, it would be a revenue enhancer. In addition to creating an incentive for more partnerships and consolidations, this approach would help to address some short-term affordability questions and free up additional capital to be invested into the water systems.

Question: How can Congress incentivize innovative solutions to drinking water infrastructure and treatment problems? Can you give some examples?

There are a number of things that Congress can and should do to further incentivize innovative solutions to the country's water infrastructure challenges. Quite simply, we cannot expect more money to fix the problem, as we know firsthand the consequences of simply putting Band-Aids on failing water systems with financial subsidies without doing or requiring more.

Most importantly, water systems need to be held accountable. It should not be acceptable to anyone that there are hundreds, if not thousands, of water systems across the country that do not have the

financial, technical, and managerial capabilities to ensure their customers receive reliable, high-quality service. It should not be acceptable to anyone that there are hundreds, if not thousands, of water systems across the country that are allowing their infrastructure to deteriorate, intentionally or not. And it certainly should not be acceptable to anyone that, every year, there are thousands of reported health-based violations of the nation's drinking water standards.[5]

All water systems should be held accountable to ensure federal subsidies are used efficiently and cost-effectively. As a general rule, we should expect communities to abide by principles of effective utility management as a condition of federal funding. Those systems that are unable or unwilling to abide by these principles should be encouraged – if not required – to pursue consolidation or partnership arrangements with owners or operators who can and do effectively manage and operate their respective water systems.

Unfortunately, a double-standard appears to exist when it comes to the enforcement of the nation's water quality regulations. Recent research indicates that government-owned water suppliers not only violate the Safe Drinking Water Act significantly more frequently than their private counterparts, but also that they are less likely to be penalized for those violations.[6] Ensuring that all water suppliers – public or private – are held to the same standards would do much to help ensure that all Americans have access to safe, reliable, and high-quality water utility service.

Apart from simply holding all water systems accountable, we must encourage more public-private partnerships and risk-sharing, where the private sector can assume some of the risks of jointly pursuing innovative solutions with communities. As discussed previously, consolidation and partnerships should not be viewed as a 'last resort,' but rather as an effective and efficient tool to help solve the nation's drinking water challenges. In terms of project financing, Congress should remove water projects from state volume caps for private activity bonds, bringing this piece of the nation's critical infrastructure in line with airports, high-speed rail, and solid waste disposal, all of which are currently exempt from existing caps. Finally, Congress should consider providing a tax incentive to private water companies that assume the responsibility of operating failing water systems, which would help to level the playing field between public and private water utilities.

Question: How do you quantify and address affordability for the consumer?

Given the challenges faced by the nation's drinking water systems – be it the current investment gap or serious noncompliance with water quality standards, 'affordability' cannot be assumed to be synonymous with 'cheap.' Instead, affordability should be viewed through the lens of 'value,' which takes into account the quality of the product and service customers are receiving. In short, having low water utility rates is not, in and of itself, virtuous.

It is relatively easy for a water supplier to have 'cheap' water utility rates by simply neglecting its infrastructure and the needs of its customers. For example, one government-owned water utility with

[5] Environmental Protection Agency, "Providing Safe Drinking Water in America: 2013 National Public Water Systems Compliance Report," p. 3, available at: http://bit.ly/2oRf080.
[6] David Konisky and Manuel Teodoro, "When Governments Regulate Governments," *American Journal of Political Science*, July 1, 2015, available at: http://bit.ly/2ntbSz6.

'cheap' rates had deferred maintenance on its water system to the point that it "did not meet either fire suppression standards . . . or normal operating standards."[7] A separate government-owned water supplier is currently on a 148,000-year water main replacement cycle. Stated differently, it will take this utility 148,000 years to replace all of the water mains in its system.[8] As is the case with serious noncompliance with water quality standards, neglecting a water system in this way is unacceptable and unsustainable.

Generally speaking, water utility rates should reflect the actual, true cost of water service, including the costs of operating, maintaining, and upgrading the water system. This standard, which is employed by NAWC's members, is important for several reasons. First, it sends an accurate price signal to the consumer, resulting in a more efficient use of the resource.[9] Second, having rates that reflect the actual cost of service helps to ensure the financial stability and viability of the utility, the benefits of which are discussed in detail below.

The importance of having water utility rates that reflect the actual cost of service notwithstanding, there are several steps that can and should be taken to help ensure that water utility service remains affordable. Perhaps most importantly, the consolidation of smaller water systems that have significant infrastructure needs and water quality challenges will create superior economies of scale that provide better value propositions to customers. Increasing the number of customers that share the costs of operating, maintaining, and upgrading a water system reduces the proportion of those costs for which any individual customer is responsible.

With service areas that already span numerous political subdivisions, NAWC's members are uniquely positioned to help make further consolidation a reality for small water systems across the country. For example, Cal Water was recently able to implement regional cost-sharing between its Lucerne service area in Lake County, California and its service area in the San Francisco area. The Lucerne service area is relatively small, with only about 1,400 service connections, but has significant infrastructure and water quality needs. Given this, water utility rates had been relatively high in this severely disadvantaged community. After the implementation of regional cost-sharing, typical customers in the Lucerne service area have seen their monthly water bills decrease by nearly 30%.

Second, water utilities should implement programs that support those customers facing economic hardship. Many of NAWC's members have low-income rate support programs that provide customers a discount on their monthly water bills. For example, Cal Water's Low-Income Rate Assistance program provides customers with a 50% discount on their monthly service charge. Several of NAWC's members, including Cal Water and American Water, have gone even further by establishing shareholder-funded grant programs that are designed to assist customers facing short-term economic or other hardships.

[7] City of Tulare, "2015/16 Adopted Budget," June 2, 2015, p. 15, available at: http://bit.ly/2oOv8HF.
[8] Golden State Water Company, "Golden State's (Proposed) Findings of Fact and Supporting Evidence and Law," in City of Claremont v. Golden State Water Company, Superior Court of the State of California – Los Angeles County, Case Number BC566125, August 5, 2016, p. 35.
[9] James Lauglin, "Full Cost Pricing Key to Sustainability," *Water World*, January 2013, available at: http://bit.ly/2ocy0Lr.

Additionally, adjusting water rate structures and the balance between a utility's fixed and quantity charges may provide benefit to low-income customers. For example, a utility with a larger number of low-income customers could decrease the proportion of their revenue requirement collected through fixed monthly service charges and increase the proportion collected through quantity charges. This could provide the customer with more control over their monthly water bills. However, this strategy must be managed locally and based on the unique circumstances of individual water suppliers.

Finally, there should be consideration for providing direct relief to challenged and low-income customers. Currently, federal funds flow directly to water utilities, which enables them to charge lower rates to all of their customers, including those that are not facing any type of economic hardship. A more efficient approach may be to transfer funds directly to challenged and low-income customers, similar to the Low Income Home Energy Assistance Program for gas and electric customers.

Question: How hospitable is the private capital market to financing investments in drinking water infrastructure?

What, if anything, can Congress do to encourage greater receptivity?

Historically, the capital markets have been very receptive to financing investments in water infrastructure, for the public and private sector alike. The fact that water utilities provide an essential service and experience limited financial volatility have made them attractive investments.

The continued receptivity of capital markets to financing water infrastructure investments is dependent on water utilities being effectively managed. For instance, NAWC estimates that its six largest members alone are collectively investing nearly $2.7 billion each year in their water systems. This level of investment is possible because the corporate credit ratings of NAWC's members are among the highest in the U.S.

On the other hand, we have seen the markets downgrade the credit ratings of some municipal water and wastewater suppliers over the last several years. For example, in 2016, Moody's downgraded the City of Jackson, Mississippi's water and sewer bonds, partly as a result of a deterioration of the utility's financial performance.[10] In many cases, these types of downgrades occur because a utility's rates are not keeping pace with the actual cost of water utility service.[11] Too frequently, needed water system improvements are indefinitely deferred as a result of the short-term political interest in keeping water rates as low as possible, which only serves to create the need for more significant rate increases in the

[10] Moody's, "Moody's Downgrades to Baaa3 the City of Jackson's (MS) Water & Sewer Revenue Debt," August 17, 2016, available at: http://bit.ly/2nWC4P0.

[11] Sharlene Leurig, "Water Ripples: Expanding Risks for U.S. Water Providers," *A Ceres Report,* December 2012, ("Since 2010, by far the most common cause of credit downgrades in the water sector has been failure to increase rates sufficiently to keep pace with expenditures on system maintenance or debt service coverage." p. 10), available at: http://bit.ly/2oObADs.

future.[12] The importance of these factors to market receptivity is illustrated by the fact that 35% of Moody's rating of municipal utility debt is based on a utility's financial strength.[13]

In short, capital markets react to risks; the higher the perceived risk, the less receptive they will be to financing an investment without a commensurate increase in return. Given this, the issue is less about the receptivity of the markets to financing water infrastructure investments, and more about whether water utilities are being managed and operated well. As is discussed in several of NAWC's other responses to the Questions for the Record, this is, indeed, something Congress can help ensure.

Question: You make the point in your testimony that in many instances, water system failures are not due to the absence of funding, but rather are attributable to poor management and decision making. From your perspective, what metrics should be used to assess what drinking water problems are caused by a lack of funding and what drinking water problems are caused by poor management?

The performance of all water systems should be measured based on the quality and consistency of water and services each provides to its customers. NAWC believes that the 10 attributes of effective utility management,[14] endorsed by the EPA and each of the major water industry associations, including NAWC, provide the framework for measuring sound water utility management decision-making. These attributes include:

- Product Quality
- Employee and Leadership Development
- Financial Viability
- Operational Resiliency
- Water Resource Adequacy
- Customer Satisfaction
- Operational Optimization
- Infrastructure Stability
- Community Sustainability
- Stakeholder Understanding and Support

These attributes consist of both leading and lagging indicators of overall water system performance. Financial viability is one of the most important leading metrics, but particularly the use of full-cost pricing or life-cycle analysis. Additionally, there is a strong correlation between financial viability and regulatory compliance, which is a key lagging indicator.

It is important to recognize that a lack of funding for needed water system improvements is not always an indicator that additional federal or state resources are needed. Unfortunately, many times water utilities would be able to raise the capital needed to finance an important water system improvement by

[12] California-Nevada Section of the American Water Works Association, "2015 California-Nevada Water and Wastewater Rate Survey," 2015, p. 3, available at: http://bit.ly/2nsK6mr.
[13] Moody's, "U.S. Municipal Utility Revenue Debt," July 30, 2014, p. 13, available at: http://bit.ly/2oUet20.
[14] EUM Utility Leadership Group, "Effective Utility Management: A Primer for Water and Wastewater Utilities," January 2017, available at: http://bit.ly/2p6MAXC.

adjusting water rates, but are simply *unwilling* to do so. In these cases, water system improvements that are needed to ensure long-term system safety and reliability give way to short-term political expediency.[15] This practice of intentionally underpricing water utility service does not benefit the public, and should not serve as a justification for additional federal or state funding:

> Ultimately, this resistance to higher water rates often results in utilities exhibiting less-than-optimal system maintenance and neglecting long-term needs until a crisis forces them to act. At that point, a rate increase can be justified as a response to pending system failures. Ultimately the artificial suppression of water rates can defeat the very intention of keeping water affordable. Financing system improvements in response to crisis can force systems to go to market when their weak financial condition demands a higher rate of return. Ratepayers then end up paying more for system repairs in the form of higher interest payments and may be paying for poorer services. Perversely, this crisis-response mode can make utilities eligible for emergency funding available from state or federal government that is offered at a lower cost than market, which perpetuates the problem of reactive system management and persistent underpricing.[16]

At the other end of the spectrum, there are certainly cases where water suppliers are *unable*, not unwilling, to raise the capital needed to finance an important water system improvement by adjusting water rates. Consider a rural water system with 500 customers in a disadvantaged community that needs to construct a new $10 million water treatment facility to comply with water quality regulations. Each of the utility's customers would have to pay more than $20,000 for this project. Assuming the plant has a 50-year lifespan and the utility is able to finance the project interest-free, each customer would end up paying more than $33 per month just for the new treatment facility, which may very well be too much of a burden for a disadvantaged community. In this instance, the first question that should be asked is whether there is an opportunity for consolidation or a partnership arrangement that would allow the costs of the new plant to be spread over a larger customer base. Only after considering this option should federal and state funding be considered.

In short, federal and state funding needs to be used more efficiently. As a general rule, applicants for federal and state funding should demonstrate that they have fully accounted for the long-term costs of their projects, including any risks inherent in construction, operations, or maintenance, and have selected the delivery model that provides the best value. For a community to maintain and enhance the condition of its infrastructure long-term, water utilities should be expected, at a minimum, to manage their assets based on a process where adequate repair, rehabilitation, and replacement are fully reflected in management decisions, including water pricing.

[15] Table Rock Capital, "Alternative Financing Mechanisms to Restore, Rebuild, and Adapt U.S. Water & Wastewater Infrastructure: Assessing the Potential for Public-Private Innovation to Reinvest in Municipal Infrastructure," August 2014, p. 8, available at: http://bit.ly/2p6YalL.

[16] The Johnson Foundation, "Financing Sustainable Water Infrastructure," January 2012, p. 18, available at: http://bit.ly/1TQmjEM.

Question: In your testimony, you discuss how partnerships and consolidation can be used to help water systems attain compliance with drinking water standards. What barriers are preventing the formation of peer-to-peer partnerships or public private partnerships?

The most significant barrier to the consolidation of systems and other partnership arrangements is that many failing water utilities simply are not being held accountable. All water utilities must be expected to maintain their systems and operations in compliance with health-based laws. If a utility is unable to attain and maintain compliance or is plagued with a history of non-compliance, it is unlikely that simply providing it with additional funds is going to solve the problem. In these instances, consolidation and other partnership arrangements should be prioritized, if not required, as they are likely to be the most efficient and cost-effective means of ensuring the water system's customers have access to safe, reliable, and high-quality water utility service.

Second, the possibility that a new owner or operator of a failing water system can be held legally responsible for past noncompliance can create a significant barrier to consolidation or other partnership arrangements. The prospect of hundreds of thousands or even millions of dollars of fines and penalties serves as a poison pill. Establishing a legal 'safe harbor' for utilities that assume the responsibility of operating failing and noncompliant water systems would do much to increase the willingness of superior water utilities to enter into consolidation or other partnership arrangements.

Finally, most municipal infrastructure projects are financed by tax-exempt municipal bonds. Generally, the tax-exempt status of these bonds is lost if a private entity acquires a long-term interest in the project. While the Internal Revenue Service has issued rules designed to give state and local governments a means to preserve the tax-exempt status of these bonds when they enter into a partnership with a private entity, as currently drafted, these remedies are not practicable for water infrastructure projects, which deters many otherwise beneficial public-private partnerships. Here again, a reasonable and narrowly tailored solution to this issue would go a long way to increasing the use of consolidation and other partnerships in the water utility sector.