CHARLOTTE WATER

Water Environment Federation
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NACWA
THE VOICE FOR A CLEAN WATER FUTURE

"THE COST OF DOING NOTHING: Why Investing in our Nation's Infrastructure Cannot Wait"

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Written Testimony of:

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on behalf of

The Water Environment Federation

and

The National Association of Clean Water Agencies

Before the:

Committee on Transportation & Infrastructure
United States House of Representatives

Rep. Peter DeFazio, Chair
Rep. Sam Graves, Ranking Member

Chairman DeFazio, Ranking Member Graves, and Members of the Committee:

It is my honor to appear before the Committee today on behalf of Charlotte Water, in partnership with the Water Environment Federation (WEF)[1] and the National Association of Clean Water Agencies (NACWA)[2], to discuss the importance of the federal role in funding and financing wastewater and stormwater infrastructure. I am Angela Lee, Director of Charlotte Water[3], the drinking water and wastewater utility serving the City of Charlotte and the greater Charlotte region in North Carolina. My testimony will focus upon three significant issues affecting wastewater and stormwater infrastructure:

- *Federal Funding of Water Infrastructure* – Congress should provide robust support for existing and proposed federal funding and financing programs, ensuring water infrastructure is a national priority on par with other vital infrastructure sectors.

- *Benefits of Funding* – community prosperity, public health, and environmental protection all benefit from federal funding.

- *Risks of Not Funding* – without appropriate investment, ratepayers, businesses, and job growth are negatively impacted and environmental quality and public health are put at risk.

Introduction

Charlotte Water maintains more than 8,600 miles of water and sewer pipeline, with nearly 280,000 active water connections countywide. Charlotte Water employs more than 950 people with an operating budget of over $460 million, and a five-year Community Investment Program budget of $1.5 billion. We are not only a provider of vital services, we are also an important provider and driver of economic prosperity for our region.

Funding our extensive infrastructure is one of our greatest challenges as a utility. Like clean water agencies around the country, Charlotte Water has many competing pressures – including the need to reinvest in aging infrastructure, maintain and upgrade treatment processes, comply

[1] The Water Environment Federation (WEF) is a not-for-profit technical and educational organization of 35,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. Since 1928 WEF and its members have protected public health and the environment. As a global water sector leader, WEF's mission is to connect water professionals; enrich the expertise of water professionals; increase the awareness of the impact and value of water; and provide a platform for water sector innovation.

[2] The National Association of Clean Water Agencies (NACWA) represents public wastewater and stormwater agencies of all sizes nationwide, with more than 325 public agency members. NACWA has been the nation's recognized leader in legislative, regulatory and legal advocacy on the full spectrum of clean water issues, as well as a top technical resource for water management, sustainability and ecosystem protection interests. The Association's unique and growing network strengthens the advocacy voice for all member utilities, and ensures they have the tools necessary to provide affordable and sustainable clean water for all.

[3] Angela Lee is the Director of Charlotte Water. Lee, who previously served as the chief of operations and division manager for Charlotte Water since 2004, stepped into her new role in January 2018. She has been a City of Charlotte employee since 1988. As Director, Lee is responsible for the countywide water treatment and distribution, wastewater treatment and collection, and utilities planning and management activities. Lee holds a Master of Public Administration degree from UNC Charlotte and a Bachelor of Science degree in Industrial Engineering from North Carolina State University. She was the 2017 Chair of the North Carolina American Water Works Association and North Carolina Water Environment Association (NC AWWA-WEA) and is a Grade A water distribution operator. Angela has been given many water industry awards including the prestigious Warren G. Fuller Award and the Arthur Sidney Bedell Award.

with Clean Water Act rules and regulations, make strategic long-term investments, and help support a high quality of life in our community while addressing household affordability constraints. Underlying all these challenges is the ongoing obligation to optimize our infrastructure and our performance for the protection of the public health and the environment.

In making operational and investment decisions we also need to account for changing conditions—such as precipitation patterns that affect the volume and intensity of flows through our system. As an example, during Hurricane Florence in September 2018 and its aftermath, in some communities millions of gallons of untreated or partially treated wastewater were discharged into our waterways across North Carolina; drinking water systems were overwhelmed as well. As an agency, we strive to make every effort to protect our community and our environment. Environmental circumstances like the weather are outside our agency's control but are something to which we must adapt. The water services we provide are vitally important and depend in large part on having adequate funding and financing resources at our disposal. The funding challenge for water infrastructure investments is not only an issue for Charlotte Water—it's a national challenge that warrants national attention and support.

The need for greater investment in our nation's infrastructure, including wastewater and stormwater, is well known. This Committee and congressional leaders were sent a letter on January 10, 2019, co-signed by 91 national, regional, and state organizations including WEF and NACWA urging Congress to include funding and financing for water infrastructure in the proposed major infrastructure package. The co-signers represent a wide diversity of larger, medium and small stakeholder organizations representing citizens from every corner of our nation.

Nationally, clean water infrastructure has received a D+ grade from the American Society of Civil Engineers' infrastructure report card, and the U.S. EPA calculates national investment needs *just to fully comply with the Clean Water Act under current conditions* at approximately $271 billion over the next 20 years. Some important facts about our nation's water infrastructure system and its needs include:

- There are an estimated 15,000 Water Resource Recovery Facilities[4] (a.k.a. Publicly Owned Treatment Works) in the U.S., with 75% of the US population – 244 million Americans – relying upon well-built and maintained systems that treat 32 billion gallons of wastewater daily;
- There are approximately 800,000 miles of wastewater collection and conveyance pipes in the U.S., many of which were built soon after WWII to help fuel our nation's growth and have far exceeded their 50-year design life;
- According to the most recent U.S. EPA Clean Watersheds Needs Survey *conducted in 2012*, the capital investment need for wastewater for the Nation will need $271 billion

[4] Several years back WEF, NACWA and other organizations recognized that the staid model for treating wastewater did not reflect the tremendous opportunity that utilizing more advanced treatment processes has for recovering and using the energy, nutrients, and water resources available in wastewater. For this reason, the sector has renamed wastewater treatment facilities Water Resource Recovery Facilities (WRRFs).

over the next 20 years. Further, the report states that the data underestimates stormwater infrastructure needs by roughly $100 billion;

- There are 6,500 communities with Municipal Separate Storm Sewer Systems (MS4) permits, covering more than 80% of the US population. Of these, only approximately 1,500 have a dedicated revenue source for stormwater infrastructure investments, a growing cost to communities;
- Looking collectively at drinking water, wastewater and stormwater infrastructure, the U.S. needs to invest a total of *$123 billion per year* above current spending levels over the next 10 years to bring systems to a state of good repair;
- While federal contributions to transportation infrastructure have stayed constant at approximately half of total transportation capital spending, federal investment in water infrastructure has declined from 63% to 9% of total capital spending since 1977. Today, more than 90% of all investments in water and wastewater in our country come from states and local ratepayers;
- The combined federal, state and local spending on water infrastructure equals about $41 billion per year, which means our national water infrastructure investment gap is $82 billion per year. If current needs are left unaddressed, the annual gap is projected to rise to $109 billion by 2026 and $153 billion by 2040, as needs from prior years accumulate;

Federal Funding of Water Infrastructure

Despite many of these challenges, as a nation we are fortunate to have the drinking water, wastewater, and stormwater systems that we have. We sometimes forget that many countries would love to have the water systems we enjoy. We established these systems many years ago to protect our people from outbreaks of cholera and other waterborne diseases. The result has been economic prosperity, public health benefits, and environmental restoration. It has been 50 years since the infamous 1969 fire on the Cuyahoga River that lead to making environmental protection of our waters a high priority through passage of the Clean Water Act in 1972. The environmental gains since then have been significant, but they were made through strong, consistent federal support of funding and financing of water infrastructure.

As a member of WEF and NACWA, I can speak for my municipal water sector colleagues in communities across the nation that we support improving upon and increasing funding for existing water infrastructure funding programs and, when appropriate, developing new funding tools. Congress has made important strides in recent years to elevate water infrastructure as a national priority – but more needs to be done to ensure the federal government prioritizes investments to support a strong, modern water infrastructure network – as it does for other sectors. This strong support for increasing federal funding for water infrastructure is a widely held position by a large majority of Americans, as demonstrated in a recent poll by the Value of Water Campaign[5] that found that 78% of respondents said it's "extremely or very important" that the President and Congress develop a plan to rebuild America's water infrastructure. The same

[5] http://thevalueofwater.org/resources

poll found that 88% of Americans agreed that increased federal funding is needed to rebuild water infrastructure.

As stated above, federal investment in water infrastructure has declined from 63% to 9% since 1977. This decrease is partially due to the replacement of the Construction Grants Program with the Clean Water State Revolving Fund (SRF). The Clean Water SRF program is one of the most successful federal infrastructure funding programs ever, and it is now critical that Congress reauthorize it and increase the authorized fund levels to help address our national needs. The last three fiscal years, Charlotte Water has obtained over $84 million in low-interest loans through the North Carolina SRF loan program. Below market interest rate loans help make sewer rates more affordable for our ratepayers, many of whom are low-income.

The Clean Water SRF loans are administered through State infrastructure financing agencies, which is meant to ensure that funding is going to the most critical projects in a state. Generally, this approach has worked, but there are several ways that the loans can be delivered more effectively and the federal capitalization grant to State-run SRF programs could be maximized better. As the Committee develops an infrastructure package, WEF and NACWA encourage the Committee to further explore some of these approaches to improve the SRF program. WEF and NACWA also urge the committee to look hard at how the SRF, as well as other current and potential federal funding programs, can provide more funding for stormwater infrastructure and water reuse and recycling projects.

I would also like to thank this Committee and Congress for reauthorizing the Water Infrastructure Finance & Innovation Act (WIFIA) and authorizing the program to receive $50 million for each of the next two fiscal years, which is estimated to provide approximately $5 billion in federal low-interest loans per year. The strong interest and support for the WIFIA program is evidenced by the fact that in 2018 the program received 62 letters of interest from utilities worth $9.1 billion in requests for federal loans. Congress should continue to fully fund the WIFIA program and reauthorize it before its current authorization expires after fiscal year 2021.

While low-interest loans through the SRF and WIFIA have proven to be a practical and cost-effective approach for the federal government, Congress needs to restore some targeted grant programs to help in several key areas, which include, but are not limited to:

Resilience – Resilience is not just building infrastructure designed to withstand the physical impacts of climate change, it also involves financial resilience, workforce resilience, technology resilience and long-term planning resilience. No other form of infrastructure will be impacted by the need for resilience more than wastewater and stormwater infrastructure -- from extreme weather to population shifts to economic swings to regulatory changes. With over 17,000 wastewater utilities and 6,500 community MS4 permit holders, they must make their systems more resilient to withstand short-term and long-term challenges. Technical and funding assistance to utilities, particularly medium and smaller ones, would be federal dollars well spent now rather than in the future in response to a disaster or crisis.

Stormwater – Communities need to make stormwater infrastructure investments in the next decade to ensure public safety and meet the requirements of the Clean Water Act. Date out of the most recent EPA Clean Watershed Needs Survey, which used 2012 data, projects a national

need of $150 billion over the next 20 years for stormwater and Combined Sewer Overflow (CSO) infrastructure for communities to remain in compliance with the Clean Water Act. Communities are moving deliberately to secure sources of funding for stormwater and green infrastructure upgrades but lack funding sources and a comprehensive set of tools to construct and maintain the required improvements. Federal loans and grants for communities can help them pursue approaches to financing the required infrastructure.

Workforce Sustainability – The Brookings Institution report – Renewing the Water Workforce - estimates the entire water sector employs 1.7 million people when accounting for utility staff, consultants, manufacturing and other jobs directly associated with the water sector. A 2010 report by the Water Research Foundation found an estimated that 30% - 50% of water utility workers will retire over the next decade. Just as with physical infrastructure, human infrastructure is a critical part of water infrastructure investment. Jobs in water utilities are local, career-long, green jobs that pay family-sustaining wages with a position for everyone from a GED to a PhD. At Charlotte Water, we have initiated a workforce development program this year to grow the pool of available water sector candidates. Participants serve under experienced water and wastewater professionals, learning important career skills and transferring institutional knowledge. Increased funding for water infrastructure investments by communities will help utilities find, train and retain the next generation of water professionals helping communities to prosper and have a clean environment.

Affordability – For most communities, the most restrictive component to a utility increasing rates to pay for necessary infrastructure investments is the desire and responsibility of the utility not to overburden their lower-income rate payers. Utilities in cities and rural areas with low-income populations, elderly and fixed-income populations, and jurisdictions with declining populations struggle to keep water affordable, while funding infrastructure needs to protect public health and comply with regulations. In many communities the lowest 20 percent of earners pay almost one-fifth of their income towards their water bill. Charlotte Water serves just over 285,000 accounts but provided 58,636 payment arrangements in 2018. Public Utilities may be forced to delay much needed projects to avoid overburdening customers. The Committee should explore approaches to help utilities address these burdens on lower-income ratepayers. The Committee is commended for its important work passing legislation last Congress to codify Integrated Planning for clean water obligations, an approach through which utilities can more strategically plan their clean water investments. Policy changes such as this will play a role in helping address affordability alongside funding.

Benefits of Funding

Strong federal investment in clean water infrastructure is paramount as cities and communities across North Carolina and the nation work to meet the needs of their residents and support business growth. In my community, Charlotte Water is keenly aware of the impact our utility has on growth of the region. With the influx of new businesses, multi-family units and growth in industries like healthcare and craft brewing, my utility must keep up with providing water and wastewater infrastructure for the Charlotte business region to thrive. Without adequate

wastewater infrastructure in the right place, at the right time, and in adequate condition, economic development stalls, developers seek other locations to invest and create jobs.

Innovation and investments in sanitation in our country have been crucial to protecting public health by reducing the prevalence of waterborne diseases, allowing our communities to thrive and population to grow. Clean water investments not only largely eradicated life-threatening diseases from the United States, they have helped protect and restore our lakes, rivers, and coastlines—giving children the opportunity to swim outdoors, fisherman to consume their catch, ecosystems to improve and new businesses to flourish. The protection and provision of water services is a core part of the public's trust in all levels of government, and there is a local, State, and national imperative to helping ensure these life-saving and quality-of-life services remain strong.

Having robust sources of federal funding and financing do more than help communities make the important capital investments they need today. Reliable funding sources also help communities look to the future and do more to stretch limited dollars by investing more strategically. For example, as communities develop and implement long-term plans not only for water and wastewater but also for roads, telecom, and other utilities, communities may find opportunities for pairing various projects (the "dig once" approach) and for phasing investments strategically over time. Communities may also be better able to adapt to changing environmental conditions to ensure that investments made today will be resilient in the future. In many cases up front investments can save long-term costs, but without access to affordable long-term funding many communities on the ground find they do not have the luxury of planning as far ahead as they may like. For example, in Charlotte, having access to various funding options provides Charlotte Water flexibility to efficiently coordinate infrastructure improvements with the local storm water utility, transit system, state transportation department and energy providers. Right now, we are working on a project in an area where the water and wastewater infrastructure is about 70 years old that will improve water, wastewater, stormwater and pedestrian infrastructure. Several agencies are coordinating to improve the quality of life in this neighborhood and impact the residents there only once through creative construction planning. Federal funding can also help support creative solutions with multiple long-term benefits and challenge communities to innovate.

Additionally, as a sector, we are striving to make resource recovery a core element of treatment and modernization of wastewater infrastructure. Without investing in innovative and modern treatment technologies, valuable and money-saving resources such as energy, nutrients, and water recycling are being lost. Recovering these resources ensures communities are maximizing their current infrastructure investments, as well as planning for their future needs. This approach is captured in the Water Resources Utility of the Future, A Blueprint for Action[6] guide that WEF, NACWA and other water associations developed. Charlotte Water for the last two years has been honored by Utility of the Future Today Recognition Program for our innovative and sustainable approaches to wastewater resources recovery.

[6] https://www.wef.org/globalassets/assets-wef/direct-download-library/public/03---resources/waterresourcesutilityofthefuture_blueprintforaction_final.pdf

Risks of Not Funding

Reliable and affordable clean water infrastructure is the backbone of our communities, both large and small, as they develop and grow economically. Families, businesses, schools, and hospitals need these essential clean water services to live, operate and continue to thrive. Public utilities are leaning more and more on ratepayers every year to meet these growing demands, placing strain on lower income households. The federal government can be an important partner in providing low-cost financing tools and funding to help ensure that protections are in place to ensure households are not at risk of losing these vital services due to cost.

Water affordability is one of the most vexing challenges facing the water sector. Nationally, the cost of clean water services has increased faster than the rate of inflation for 15 consecutive years, and these trends are anticipated to continue as infrastructure ages, communities work to address compliance obligations and new challenges emerge. For households with low or stagnant incomes, the amount they are spending on water often exceeds what EPA considers affordable. Municipalities also face significant pressure to set rates that are attainable for the often-growing percentages of low-income households in their service area– even if it means deferring investments.

Federal investment in clean water can be a major economic driver for communities in meeting their growth potential. Those investments are wise economically for communities and the nation – every $1 million invested in drinking water and wastewater infrastructure increases long-term GDP by $6.35, creates 16,000 new jobs, and provides $23.00 in public health-related benefits.[7] Studies also show that the US economy would stand to gain over $200 billion in annual economic activity and 1.3 million jobs over a 10-year period by meeting its current water infrastructure needs. Without these investments, breakdowns in water supply, treatment and wastewater capacity are projected to cost manufacturers and other businesses over $7.5 trillion in lost sales and $4.1 trillion in lost GDP from 2011 to 2040.

Further, federal investment is needed for communities to continue making the water quality gains they have made over the past several decades under the Clean Water Act. As communities deal with aging infrastructure and increasing water quality challenges, federal resources are important in helping public utilities meet these challenges head on and ensuring residents have the clean and safe water services they deserve. We cannot risk the incredible progress on environmental and water quality gains that have been made under the Clean Water Act due to stagnant federal investment. And we also need to pay close attention to the real health and environmental risks associated with water services becoming too costly for households to afford.

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[7] http://thevalueofwater.org/sites/default/files/Economic%20Impact%20of%20Investing%20in%20Water%20Infrastructure_VOW_FINAL_pages.pdf

Conclusion

This testimony has touched upon just a few of the water infrastructure challenges we at the local government level are faced with, and some of the remedies we believe will help lessen the financial impact on our citizens, particularly those who have so little income to spare. More federal funding through existing programs and potential new programs will help us begin to make headway towards addressing in our wastewater and stormwater infrastructure needs. The return to the nation for increased federal funding will be environmental, public health and economic benefits critical to the health and safety of our country.

Thank you, Mr. Chairman, Mr. Ranking Member and Committee Members, for your kind attention. I would be happy to answer any questions you may have.