TESTIMONY OF

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ON BEHALF OF DC WATER

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"Sustainable Wastewater Infrastructure: Measures to Promote Resiliency and Climate Adaptation and Mitigation"

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Good morning and thank you, Chairmen DeFazio and Napolitano, Ranking Member Rouzer, and all members of the Subcommittee for the invitation to testify before you today, on behalf of DC Water, our Board of Directors and our CEO David Gadis, on sustainable wastewater infrastructure.

My name is Kishia Powell, and I am the Chief Operating Officer of DC Water, which provides essential drinking water and wastewater services to over 672,000 residents, schools, and businesses in the District, as well as wastewater treatment service for 1.6 million people across the District and neighboring Maryland and Virginia suburbs. DC Water is proud to have provided these services without interruption during the COVID-19 pandemic.

I also serve as Vice President of the National Association of Clean Water Agencies, or NACWA, which represents more than 330 public clean water utilities nationwide, including DC Water. NACWA's public utility members are on the front lines of environmental and public health

protection every day to ensure their communities have reliable and affordable clean water services.

I commend the Committee for focusing today's hearing on an increasingly urgent topic. No community is resilient without affordable, accessible water. Modernizing and replacing the country's aging water and wastewater infrastructure, is an increasingly important concern. In fact, adapting and improving infrastructure to meet changing climate, precipitation, and water use trends, may be the nation's most glaring public works need.

I also applaud the Biden-Harris Administration for its demonstrated commitment to water infrastructure investment. Both the President's infrastructure proposal and his proposed budget to Congress are historic, significant, and critical to protecting the health and wellbeing of every American. These investments reflect the critical role that water infrastructure will play in building back better and addressing climate change.

The reality is that climate change is all about water. While the *causes* of climate change relate to air pollution, the *impacts* of climate change—increasingly volatile precipitation patterns, drought, floods, intensifying storms, rising sea levels and coastal erosion—are almost all related to water. And that means water utilities will be front and center in addressing these growing challenges.

At the same time, utilities nationwide are keenly aware that making their communities more resilient to climate change is also an equity and environmental justice issue. In a recent

discussion with our Board of Directors we discussed Water Equity and Resilience and acknowledged that we cannot achieve resilience without water equity – that intersection of water management, Equity and Resilience, making sure that all communities are resilient in the face of a changing climate and likewise share in the economic, social, and environmental benefits of the systems we manage and the infrastructure investments that are made. Our households that are most vulnerable to the impacts of climate change, are often low-income families of color, with many living in flood-prone areas and without the financial resources to afford the costs related to clean-up and restoration. This is where we see environmental justice and climate justice are inextricably linked and where opportunities for equitable approaches become evident and timely.

Utilities are already helping communities adapt to, and manage, extreme storm events, and DC Water is a national leader in this respect. However, these resilience measures often require costly new investments to protect and adapt the billions of dollars of public investment in water infrastructure already in the ground. This can create severe financial challenges for ratepayers, and particularly unjust and disproportionate impacts on low- and moderate-income customers.

Climate Adaptation

At the heart of DC Water's efforts is our Clean Rivers Project, an ongoing effort to reduce combined sewer overflows (CSOs) to the District's waterways. DC Clean Rivers is a $2.7 billion infrastructure program designed to capture and treat wastewater during rainfalls before it reaches local waterways. The program's investments have already delivered a 90% reduction in system wide CSO volume for the Anacostia River, and an economic impact of 41,850 jobs (direct and indirect) over the life of the program, just to highlight a few benefits.

Clean Rivers uses both traditional gray, and green, infrastructure strategically around the city to reduce flooding and manage stormwater runoff, including increased precipitation from climate change. Yet even an investment of this scale can be susceptible to extreme events. As an example, an unusually intense rainstorm on September 10, 2020 dumped almost three inches of stormwater on the District over a two-hour period. The impact on the city's sewer infrastructure was immediate.

During this event, sewer and stormwater pumps throughout the system were pushed to their maximum pumping capacity. Within 25 minutes the new Anacostia Tunnel System filled to its capacity of 100 million gallons. The flow to our Blue Plains plant spiked and our new wet weather treatment facility was pressed into service. It too quickly reached capacity. Across the city, our existing sewers performed as designed but were insufficient to handle the amount of stormwater generated.

These types of extreme storms are not unique to the DC region – they are occurring throughout the country with increasing frequency and intensity, straining public clean water utility infrastructure and threatening regulatory compliance. In other jurisdictions, increased drought conditions are creating a different set of challenges for water and wastewater systems. In both cases, it will require a significantly increased investment to ensure safe, reliable, and compliant water supplies for all Americans.

These concerns are not new, but they are growing. More than a *decade* ago, NACWA and the Association of the Metropolitan Water Agencies (AMWA) released a report detailing the

potential impact of climate change on wastewater and drinking water utilities. This report estimated the adaptation costs for these critical facilities to be between $448 billion and $944 billion through 2050. In the decade plus since that report, climate change has proven to be an even greater challenge to public clean water and drinking water utilities.

These costs underscore the importance of the Committee's work on the recently introduced *Water Quality Protection and Job Creation Act of 2021*, H.R. 1915. This timely bill authorizes substantially increased funding for the Clean Water State Revolving Fund (CWSRF), Sewer Overflow and Stormwater Reuse Municipal Grants, as well as grants for wet weather and resiliency pilot projects. I emphasize grants as they are particularly beneficial for struggling communities that cannot take on more debt financing to meet these challenges.

These funds are an important first step to bridge the growing gap in the federal cost share of water infrastructure, which is currently less than five percent. This funding represents a lifeline for communities to maintain and improve local infrastructure, ensure water quality, support water equity, and protect public health in the face of climate change.

Climate Mitigation

Clean water utilities around the country are also contributing to climate mitigation measures through renewable energy projects that achieve reductions in greenhouse gas emissions and ultimately help reach carbon neutrality goals. As the single largest power consumer in the District, DC Water's operations offer significant green energy potential from thermal energy recovery supplying 100% of our heating needs at HQO, our LEED Platinum certified

headquarters, an estimated 13 MW of on-site combined heat and power at Blue Plains to solar project implementation and the potential to generate power from food waste. Systemwide, we have roughly a 200 MW equivalent of thermal energy in our sewers; something unique to us in the District and yet untapped.

DC Water's Blue Plains Advanced Wastewater Treatment Plant was the first project to use thermal hydrolysis in North America and was the largest such facility in the world when it was commissioned in October 2015. The clean, green renewable energy created through this process is enough to power one-third of the Plant's energy needs. Based on our GHG emissions modeling from 2007 to 2017, our Thermal hydrolysis process (Cambi/digestion/combined heat and power (turbines) project) reduced our carbon footprint by roughly 1/3. More recently, the Authority has completed the installation of a solar lighting array to capture additional clean power, which could further reduce our reliance on the power grid.

Though DC Water's energy opportunities were identified several years ago, we recently reinvigorated our focus on developing an actionable project portfolio that aligns collaborators and expedites funding from investors, for the purpose of achieving the District's Carbon & Equity Goals. DC Water understands that implementation of innovative clean energy projects can result in operational savings and allow DC Water to invest those savings in other critical infrastructure needs while maintaining affordable rates.

Closing

In closing, I would like to thank the Committee again for the opportunity to testify before you today on this important issue and for the work you are doing on behalf of the public clean water sector.

At DC Water, our motto is 'Water is Life.' Today, we urgently ask Congress to align funding levels with this basic truth, and ensure that water infrastructure allocations are proportionate to, or greater than, other infrastructure sectors.

We in the public clean water sector firmly believe that this is the moment for Congress to act to address the nation's growing water infrastructure crisis and transform a generational problem into a multigenerational solution.

That concludes my testimony and, I would be happy to answer any questions the Committee may have.