

Attachment—Additional Questions for the Record

**Subcommittee on Environment and Climate Change
Hearing on
“Trusting the Tap: Upgrading America’s Drinking Water Infrastructure”
March 29, 2022**

Ms. Lori J. Mathieu, Public Health Branch Chief, Environmental Health & Drinking Water Branch, Connecticut Department of Public Health, President, Association of Drinking Water Administrators

The Honorable Frank Pallone, Jr. (D-NJ)

1. Ms. Mathieu, in your testimony, you mention that the water sector is facing retirements and workforce shortages across many fields, including engineering, construction, and public sector positions. While the funding appropriated through the Infrastructure Investment and Jobs Act (IIJA) will be allocated to states over five years, the funding will have a longer impact as loans are paid back and available to fund additional projects.
 - a. Does the funding provided in IIJA present an opportunity to bolster our workforce?

RESPONSE: Yes, the significant IIJA funds provide a clear opportunity to build the drinking water workforce for public water systems, state regulatory agencies, and all people involved with drinking water construction projects and the water industry in general. While many people in this industry are retiring, there are also opportunities to invest in attracting new people into this work force. Both opportunities and challenges, unprecedented amounts of infrastructure funding, competition for engineers and financial managers is fierce between the systems, consulting engineers, contractors, and the public sector. Some seek the highest salary while others want to contribute for the good of the public. Some state agencies have hiring restrictions such as caps on the number of employees. State agencies have experienced a loss of institutional memory with retirements of the Baby Boomers and changing jobs with the “Great Resignation” from the pandemic. Hiring certain job positions has recently become increasingly difficult. Many state agencies are struggling to attract college graduates to engineering jobs. States need engineers to be able to use the IIJA funds appropriately.

ASDWA sees an opportunity to work with Congress and EPA to build a new emphasis on development of drinking water engineering disciplines in University and College Schools of Engineering. ASDWA wishes to work with EPA on development and enhancement of hands-on training opportunities and internships

within Schools of Engineering undergraduate and graduate programs. The IJA funding can assist to be the catalyst to build engineering sustainability. ASDWA's membership are grateful for the IJA, for Congress's investment in safe drinking water, and for the vast opportunities provided for workforce development.

- b. Due to the revolving nature of the funds, how important will a sustainable workforce be for delivering resources to communities after the five years of IJA appropriations?

RESPONSE: Unfortunately, the set-asides are not revolving, and state agencies are concerned about sustaining the workforce to complete the construction projects after the five years of IJA appropriations. Having a sustainable workforce for the entire water sector is critical because the infrastructure challenges are not going to be solved in a five- or ten-year window.

One critical component of a sustainable workforce is for that workforce to be local. For example, as part of [Newark's lead service line replacement program](#), the Department of Water and Sewer Utilities focused on providing training and hands-on experience to local residents to increase local capacity for replacements, so that over 23,000 lead service line replacements could be completed in two years. These workers can now transfer their knowledge and skills to other water systems in New Jersey and the Tri-State Area. Further, with Newark as an important example, states, towns, and cities can work to develop similar workforce development plans.

- c. Related to capacity at the state level, can the Administration and Technical Assistance set-aside be a useful tool for states to build their own capacity and support State Revolving Fund administration over the long term?

RESPONSE: Yes, the set-aside is definitely useful, but again the set-aside is not revolving. Each state is unique and the approaches for using set-asides vary considerably between the states and is highly dependent on the states' policies and procedures.

Additionally, the impacts to states from the Congressionally Directed Spending, otherwise known as earmarks, to the base Drinking Water State Revolving Loan Fund (DWSRF), are significant. While the five-year IJA funding will temporarily mitigate these impacts, the potential negative impacts, starting in year six, will impact long-term sustainability of state programs. ASDWA recognizes Congress' authority to direct funding toward specific construction projects and recommends that congressionally directed spending be in addition to the base DWSRF funding, as opposed to being taken from that funding and reducing the set-asides available to state programs. For example, in one state, a 35% cut to the annual capitalization grant for DWSRF is going to significantly impact the program. In this state, \$4-5 million a year from the set-asides is used to fund much needed

system consolidations, which is one potential solution to improving small system compliance.

Long-term sustainability of state programs is linked to consistent funding for the Public Water System Supervision (PWSS) program to continue to close the funding gap between current funding and what is needed. In 2019, ASDWA updated its assessment of the funding gap between the funding available from all sources and the needed funding. The report found that the gap in FY2020 was \$375 million and would grow to \$469 million in FY 2029¹. This gap results in states providing less technical assistance for water systems, less oversight, and less staff resources to implement all components of the SDWA. As this funding gap continues to persist, States are struggling to cope with ever-increasing regulatory and non-regulatory requirements and expectations to make decisions based on the most up-to-date science. As a result, many of ASDWA's members and their staff are facing high turnover due to workforce burnout, causing concerns for long-term program sustainability. The potential decrease in the set-asides after the five-year IJA funding is an issue that will need to be addressed in the near future in order to ensure state public water system program sustainability.

The Honorable Lisa Blunt Rochester (D-DE)

1. Climate change is creating more frequent and stronger storms—making infrastructure upgrades, including drinking water upgrades, more costly. In Delaware, as the state with the lowest lying mean elevation in the country, we see the impacts of climate change every day.
 - a. How does climate change impact our water systems?

RESPONSE: The impacts are system specific. Some areas, such as the Southwest and Midwest, are currently coping with an unprecedented drought. Other areas, such as Texas and Louisiana, have experienced extreme weather events such as ice storms and extended periods of freezing temperatures. Additionally, wildfires in the West are substantially impacting the source water quality in the impacted watersheds. States along the East Coast are experiencing rising ocean levels, an increase in extreme weather events including drought, additional 90-degree days and extended warmer seasons, all which impact drinking water quality and quantity. Systems need to improve preparedness and resilience from extreme weather events while maintaining their existing infrastructure and complying with new regulations such as the Lead and Copper Rule Revisions (LCRR) and the future standards for per- and polyfluoroalkyl substances (PFAS). Investment in individual and regional water supply plan development and implementation is important to address the impact of climate

¹ 2019 Analysis of State Drinking Water Programs' Resources and Needs, ASDWA, July 2020.
<https://www.asdwa.org/wp-content/uploads/2020/07/2019-Analysis-of-State-Drinking-Water-Programs-Resources-and-Needs.pdf>

change to drinking water supplies. Climate change impacts drinking water quality and quantity, calculation of these effects is important to development of resiliency.

- b. How will the investments from the Bipartisan Infrastructure Law help to make the drinking water systems in those communities most vulnerable to climate change more resilient?

RESPONSE: These additional funds will help water systems make the upgrades that they need. There are many competing priorities as mentioned above. Without adequate funds, water systems must make tough decisions regarding whether to invest in needed maintenance, distribution system improvements, or resiliency projects. An investment in water system asset management and water supply resiliency planning would assist the water industry to build resiliency to climate change.

The Honorable Cathy McMorris Rodgers (R-WA)

1. From your perspective, are there any legal or practical disconnects between the new lead and copper rule and what is required for oversight of the new funding under IIJA?

RESPONSE: One practical disconnect has to do with working with homeowners to determine the material of the service line on their private property, as well as funding the replacement of the private side of a lead service line, which can also be a legal disconnect in some municipalities and states.

Additionally, another practical disconnect is that while the IIJA funding is soon going to be rolled out, water systems and the state agencies are in a holding pattern regarding lead service line replacement requirements, between the existing Lead and Copper Rule (LCR) currently in effect for the states, the Lead and Copper Rule Revisions (LCRR) currently in effect at the federal level with compliance requirements due in October 2023, and EPA's planned Lead and Copper Rule Improvements (LCRI), due to be proposed next year. While ASDWA has released our own [State Implementation Framework for the Lead Service Line Inventory Requirements Under EPA's LCRR](#), states and utilities are limited in their ability to make critical decisions until EPA releases its LSL inventory guidance. This guidance is needed in order to provide clarity on a number of implementation questions and concerns from both the states as co-regulators and the water systems as regulated entities.

2. Optimized corrosion control treatment has not been mentioned in the hearing.
 - a. Are optimized corrosion control efforts an important tool for preventing lead exposures?

RESPONSE: Both optimized corrosion control treatment and the removal of the source of lead (i.e., lead service lines and leaded plumbing components) are equally vital efforts in reducing the overall risk of lead exposure in drinking water. Even with optimized corrosion control in place, there are still potential risks of lead exposure through unintended consequences of source and treatment changes, as we saw in Flint, MI and Washington, DC; thus, removal of lead service lines, which represent the greatest risk of lead in drinking water, is of utmost importance. On the other hand, even after millions of lead service lines are removed through the ongoing efforts of public water systems across the country, optimized corrosion control will still be necessary due to other potential routes of lead exposure from premise plumbing and to ensure equilibrium within the distribution system.

A voluntary ASDWA-EPA program, the [Area Wide Optimization Program \(AWOP\)](#) is extremely important in supporting state drinking water programs. AWOP works to expand states' technical knowledge, and ultimately the water systems' knowledge, in treatment optimization. With the continued need to understand technical details for optimized corrosion control treatment to ensure compliance with the LCRR and lower lead exposure from drinking water, ASDWA believes this program must be fully funded into the future as the LCRR moves forward. These funds come from both EPA's annual budget for federal implementation and SRF set-asides for state programs. These resources fund AWOP technical meetings and technical assistance to systems and this funding needs to be consistent and commensurate with program interest and growth.

- b. If all lead service lines in America are removed and replaced with non-lead service lines, would we still need optimized corrosion control to address copper piping and lead in premise plumbing?

RESPONSE: As previously discussed, optimized corrosion control will always be an important tool for preventing lead exposure and controlling corrosion within the distribution system. Even once the millions of lead service lines are removed at some point in the future, optimized corrosion control will still be necessary due to other potential routes of lead exposure from premise plumbing as noted above. Lead materials in premise plumbing can include lead in brass drinking water fixtures and lead solder in internal building pipe networks. Lead in premise plumbing will likely remain in place until a homeowner or building owner takes steps to remove it. Additionally, lead may still exist on the utility side, even after service lines are removed—while the BIL funds can be utilized to replace service line connectors (i.e., “goosenecks” or “pigtailed”), the BIL does not provide funding for the replacement of lead joints in distribution system pipes or lead-lined tanks. Until all lead is removed from drinking water piping, optimized corrosion control will be needed to reduce exposure to lead and copper.

Understanding water quality parameters that affect corrosion control measures and understanding the nuances in optimizing corrosion control treatment is critical to carrying out the provisions of an effective Lead and Copper Rule. Experienced state and federal staff with knowledge of the complexities of corrosion control treatment are necessary to ensure that corrosion control technology continues to provide safe drinking water. To ensure an effective LCRR, it must be a priority to close the PWSS funding gap and to continue to invest in programs like AWOP, as experienced state drinking water program and engineering staff are needed to provide skilled oversight of drinking water quality results and to protect public health.

3. Are there burdensome, direct, or indirect, unfunded, or underfunded mandates that are being imposed on States or municipalities in IJJA/BIF?

RESPONSE: ASDWA's members recognize the importance of full lead service line replacement (both public and private sides) for public health protection. Partial lead service line replacement, only on the public side, is problematic. With 6-10 million estimated lead services lines in the US, the financial impact to the property owner for paying for their portion (private side) of the full lead service line replacement could be a significant burden for a property owner. One way to address this issue would be to allow states to provide 100% principal forgiveness for the LSL portion of the BIL funding, rather than the current allowable 49%, so that systems are more motivated to ensure LSL replacement projects can be completed without cost to the property owner. Some states have reported that water systems in their state have no interest in a loan for LSL replacement and that they do not want to pay for infrastructure that the system does not own; however, if 100% principal forgiveness were to be an option for completing LSL replacement projects, then the financial burden would be removed from both the system and the property owner.

Replacing all lead service lines will require significant investments, even beyond the incredible amounts included within the BIL. In 2019, EPA estimated that a single lead service line replacement should cost on average \$4,700 but could cost up to \$12,300. However, since COVID, water systems are reporting even higher costs due to supply chain issues and increased prices for construction materials and labor. If we look at just the average cost estimated by EPA for removal, estimates range from \$28 to \$47 billion dollars to replace all these lines nationwide. However, based on current estimated costs, this is still underestimating the full cost of completely removing all lead service lines.

Additionally, many water systems are still in the process of completing their lead service line inventories, which are not required to be completed by EPA until October 2024. These inventories are necessary so that a utility can identify the locations of lead lines in their system prior to initiating a lead service line replacement project. The cost to

complete these inventories must also be considered, as well as the cost for the state agencies to approve these inventories and lead service line replacement projects. The \$15 billion provided within the BIL is a crucial first step in tackling this public health issue and it is a unique opportunity to invest in drinking water infrastructure. In the future, additional funding will be needed and ASDWA welcomes any additional opportunity to assess and outline future needs as the BIL moves forward,

As previously mentioned, the negative impacts to states from the Congressionally Directed Spending, otherwise known as earmarks, to the base Drinking Water State Revolving Loan Fund (DWSRF), are significant. While the five-year IJA funding will temporarily mitigate these impacts, the potential negative impacts, starting in year six, will impact long-term sustainability of state programs. ASDWA recognizes Congress' authority to direct funding toward specific construction projects and recommends that congressionally directed spending be in addition to the base DWSRF funding, as opposed to being taken from that funding and reducing the set-asides available to state programs. For example, in one state, a 35% cut to the annual capitalization grant for DWSRF is going to significantly impact the program. In this state, \$4-5 million a year from the set-asides is used to fund much needed system consolidations, which is one potential solution to improving small system compliance.

Long-term sustainability of state programs is linked to consistent funding for the Public Water System Supervision (PWSS) program to continue to close the funding gap between current funding and what is needed. In 2019, ASDWA updated its assessment of the funding gap between the funding available from all sources and the needed funding. The report found that the gap in FY2020 was \$375 million and would grow to \$469 million in FY 2029. The potential decrease in the set-asides after the five-year IJA funding is an area that needs further review and assessment concerning the negative impact to state's drinking water programs. ASDWA welcomes any further reach out to assist to outline these impacts in greater detail.

4. Intended Use Plans prioritize DWSRF loans to communities that are out of compliance with the Safe Drinking Water Act, that non-compliance is causing a threat to human health, and the community itself cannot afford making changes on its own – on a per capita basis. The EPA memo suggests states will need to make changes to their Intended Use Plans for the next 5 years.

- a. How much pressure do your members feel to change their Intended Use Plans?

RESPONSE: State agencies are in the process of revising Intended Use Plans in order to match up with new funding that is designated for lead service line replacement and treatment of emerging contaminants. EPA's implementation memo that discusses the Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law states that the agency "expects states to review, refine, and improve as necessary, their disadvantaged community definition and

affordability criteria to ensure that they are reflective of current affordability issues within the state.” States must include this definition within their IUPs. EPA cannot require states to make these changes, but the Agency is strongly encouraging SRF programs to consider it.

- b. What will these changes mean for communities that might otherwise qualify based on the priority criteria, but will now be bumped down because of new IUP criteria?

RESPONSE: It is still too early to tell how changes to a state’s IUPs will impact communities as states are in the first round of revising and/or developing IUPs using the BIL funds. Additionally, the amount that a state’s IUP criteria changes will vary nationwide.