

TRUSTING THE TAP: UPGRADING AMERICA'S DRINKING WATER INFRASTRUCTURE

HYBRID HEARING

BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT AND CLIMATE
CHANGE
OF THE

COMMITTEE ON ENERGY AND
COMMERCE

HOUSE OF REPRESENTATIVES

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TRUSTING THE TAP: UPGRADING AMERICA'S DRINKING WATER INFRASTRUCTURE

TUESDAY, MARCH 29, 2022

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT AND CLIMATE CHANGE,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:33 a.m., the John D. Dingell Room, 2123, Rayburn House Office Building and remotely via Cisco Webex online video conferencing, Hon. Paul Tonko, (chairman of the subcommittee) presiding.

Members present: Representatives Tonko, Schakowsky, Sarbanes, Clarke, Ruiz, Barragán, McEachin, Blunt Rochester, Soto, O'Halleran, Pallone (ex officio); McKinley (subcommittee ranking member), Johnson, Hudson, Carter, Palmer, Curtis, Crenshaw, and Rodgers (ex officio).

Also present: Representatives Castor and McNerney.

Staff present: Timia Crisp, Professional Staff Member; Waverly Gordon, Deputy Staff Director and General Counsel; Tiffany Guarascio, Staff Director; Anthony Gutierrez, Professional Staff Member; Caitlin Haberman, Senior Professional Staff Member; Perry Hamilton, Clerk; Zach Kahan, Deputy Director Outreach and Membership Services; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Mackenzie Kuhl, Press Assistant; Brendan Larkin, Policy Coordinator; Elysa Montfort, Press Secretary; Kaitlyn Peel, Digital Director; Kylea Rogers, Staff Assistant; Andrew Souvall, Director of Communications, Outreach and Member Services; Rebecca Tomilchik, Policy Analyst; Michael Cameron, Minority Policy Analyst, Consumer Protection and Commerce, Energy, Environment; Jerry Couri, Minority Deputy Chief Counsel for Environment; Peter Kielty, Minority General Counsel; Emily King, Minority Member Services Director; Bijan Koohmaraie, Minority Chief Counsel, Oversight and Investigations Chief Counsel; and Mary Martin, Minority Chief Counsel, Energy and Environment

Mr. TONKO. The Subcommittee on Environment and Climate Change will now come to order.

Today the subcommittee is holding a hearing entitled, "Trusting the Tap: Upgrading America's Drinking Water Infrastructure."

Due to the COVID-19 public health emergency, members can participate in today's hearing either in person or remotely via online video conferencing.

In accordance with the updated guidance issued by the attending physician, members, staff, and members of the press present in the hearing room are not required to wear a mask.

For members participating remotely, your microphones will be set on mute for the purpose of eliminating inadvertent background noise. Members participating remotely will need to unmute your microphone each time you wish to speak.

Please note that once you unmute your microphone, anything that is said in Webex will be heard over the loudspeakers in the committee room and subject to be heard by the live stream and C-SPAN.

Since members are participating from different locations at today's hearing, all recognition of members, such as for questions, will be in the order of subcommittee seniority.

Documents for the record can be sent to Rebecca Tomilchik at the email address we provided to staff, and all documents will be entered into the record at the conclusion of this hearing.

I now recognize myself for 5 minutes for an opening statement.

**STATEMENT OF HON. PAUL TONKO, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF NEW YORK**

Mr. TONKO. For many years under both Democratic and Republican majorities, this committee has heard from a chorus of State and local governments, public health and environmental organizations, labor unions, and American manufacturers urging Congress to provide greater Federal assistance in support of our Nation's crumbling water infrastructure.

We are all too aware of water systems' struggles, frequent main breaks, massive leaks of treated water, PFAS contaminations, and an estimated ten million lead pipes in service, which are overwhelmingly found in low-income communities and communities of color.

These challenges on top of a growing backlog of maintenance projects put financial stress on local governments and water authorities, which then translates to rate increases for water users.

I believe that every federally elected official should bear some responsibility and, frankly, some shame that there are so many Americans that lack access to safe, reliable, and, yes, affordable drinking water.

Only since last year can we say that we have made an honest attempt to tackle the scale of this problem. Last year's bipartisan infrastructure law made an historic down payment to address our long-neglected water infrastructure. It included more than \$50 billion for water systems, and today we will have an opportunity to examine the funding being distributed through the Drinking Water State Revolving Funds.

This includes some \$11.7 billion to supplement the Drinking Water SRF annual appropriations; \$15 billion for the replacement of lead service lines; and \$4 billion to address emerging contaminants in drinking water, such as PFAS.

Furthermore, Congress has required that 49 percent of the funds for the SRF supplemental and lead lines be provided as grants and forgivable loans to our disadvantaged communities.

Given this historic investment, there will certainly need to be some adjustments made by States, and with that in mind, earlier this month EPA issued an implementation memo to provide information to States on how best to administer these new funds, and by providing this funding through the SRF, States have flexibility to meet their unique needs.

This is the nature of the cooperative federalism enshrined in the Safe Drinking Water Act, and I have no doubt that it can continue to be a successful model.

It is my expectation that EPA will continue to provide technical assistance and guidance on how States can make the most of these funds, including by identifying best practices to enhance capacity building and program access for rural and disadvantaged communities.

We know that ramping up State and local governments' capacity to administer these funds effectively will have its challenges, but we should not allow these challenges, which can and will be overcome by committed States, to overshadow the immense opportunity being provided by this funding.

States and local governments will finally be able to address their immense infrastructure backlogs. They will have a pipeline of resources to enable recruitment and training of the next generation of water sector employees and the ability to access SRF funds as grants and forgivable loans which provides new opportunities to small and disadvantaged systems that previously would never have been able to consider an SRF loan.

It is no surprise that stakeholders, such as the National Rural Water Association and the Rural Community Assistance Partnership, have submitted letters which will be entered into the hearing record later today that celebrate this funding's potential benefits to rural communities.

The bipartisan infrastructure law will result in long-overdue work getting done. It will fund projects that will make Americans healthier, and it will create jobs.

The city of Newark has proven it can be done, and the work being done in Milwaukee is further confirming that there are replicable models for removing lead lines and repairing infrastructure that results in developing a localized, unionized workforce.

This funding will not solve all of our Nation's water issues. There is still work to do both to ensure effective implementation of these funds as well as efforts to improve water affordability, system resilience, and certainly standard setting.

But I am excited that today we will hear from State, local, public health, and labor organizations to understand the opportunities created by this bipartisan infrastructure law.

I do thank our witnesses for joining us this morning, and I look forward to your testimonies.

[The prepared statement of Mr. Tonko follows:]

PREPARED STATEMENT OF HON. PAUL TONKO

Committee on Energy and Commerce

Opening Statement as Prepared for Delivery
of

Subcommittee on Environment and Climate Change Chairman Paul D. Tonko

Hearing on “Trusting the Tap: Upgrading America’s Drinking Water Infrastructure”

March 29, 2022

For many years— under both Democratic and Republican majorities— this committee has heard from a chorus of state and local governments, public health and environmental organizations, labor unions, and American manufacturers, urging Congress to provide greater Federal assistance in support of our nation’s crumbling water infrastructure.

We are all too aware of water systems’ struggles: frequent main breaks, massive leaks of treated water, PFAS contaminations, and an estimated 10 million lead pipes in service— which are overwhelmingly found in low-income communities and communities of color.

These challenges, on top of a growing backlog of maintenance projects, put financial stress on local governments and water authorities, which translates to rate increases for water users.

I believe that every federally elected official should bear some responsibility and, frankly, some shame that there are so many Americans that lack access to safe, reliable, and affordable drinking water.

Only since last year can we say that we have made an honest attempt to tackle the scale of this problem.

Last year’s Bipartisan Infrastructure Law made an historic down payment to address our long-neglected water infrastructure.

It included more than \$50 billion for water systems, and today we will have an opportunity to examine the funding being distributed through the Drinking Water State Revolving Fund.

This includes \$11.7 billion to supplement the Drinking Water SRF’s annual appropriations, \$15 billion for the replacement of lead service lines, and \$4 billion to address emerging contaminants in drinking water, such as PFAS.

Furthermore, Congress has required that 49% of the funds for the SRF supplemental and lead lines be provided as grants and forgivable loans to disadvantaged communities.

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Given this historic investment, there will certainly need to be some adjustments made by states.

And with that in mind, earlier this month, EPA issued an implementation memo to provide information to states on how to best administer these new funds.

And by providing this funding through the SRF, states have flexibility to meet their unique needs.

This is the nature of the cooperative federalism enshrined in the Safe Drinking Water Act, and I have no doubt that it can continue to be a successful model.

It is my expectation that EPA will continue to provide technical assistance and guidance on how states can make the most of these funds, including by identifying best practices to enhance capacity building and program access for rural and disadvantaged communities.

We know that ramping up state and local governments' capacity to administer these funds effectively will have its challenges.

But we should not allow these challenges— which can and will be overcome by committed states— to overshadow the immense opportunity being provided by this funding. States and local governments will finally be able to address their immense infrastructure backlogs.

They will have a pipeline of resources to enable recruitment and training of the next generation of water sector employees.

And the ability to access SRF funds as grants and forgivable loans provides new opportunities to small and disadvantaged systems that previously would never have been able to consider a SRF loan.

It is no surprise that stakeholders, such as the National Rural Water Association and the Rural Community Assistance Partnership, have submitted letters, which will be entered into the hearing record later today, that celebrate this funding's potential benefits to rural communities.

The Bipartisan Infrastructure Law will result in long overdue work getting done. It will fund projects that will make Americans healthier. And it will create jobs.

The City of Newark has proven it can be done.

And the work being done in Milwaukee is further confirming that there are replicable models for removing lead lines and repairing infrastructure that results in developing a localized, unionized workforce.

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This funding will not solve all our nation's water issues.

There is still work to do, both to ensure effective implementation of these funds as well as efforts to improve water affordability, system resilience, and standard setting.

But I am excited that today we will hear from state, local, public health, and labor organizations to understand the opportunities created by the Bipartisan Infrastructure Law.

I want to thank our witnesses for joining us this morning. I look forward to your testimonies.

PREPARED STATEMENT OF HON. PAUL TONKO

Mr. TONKO. And with that, I will now recognize the ranking member of the subcommittee, Representative McKinley of West Virginia.

The mic is yours.

OPENING STATEMENT OF HON. DAVID B. MCKINLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

Mr. MCKINLEY. Thank you, Mr. Chairman.

Mr. Chairman, according to the American Society of Civil Engineers, they publish a report card that ranks the States according to their water quality and their whole infrastructure system, and they commented that Nevada and Oregon were ranked first and second for their quality of their infrastructure.

So it may be understandable that those States may have had some reservation about funding an infrastructure bill, but what about Mississippi, West Virginia who ranked last?

If you look at the report card, we are ranked last in the country. Our drinking water alone in West Virginia was given a D, the lowest rating.

These States are desperate. Nearly everyone in Congress says America needs better infrastructure, but when they were given a chance to vote for the bill last year, it did not pass unanimously.

So, Mr. Chairman, look. I have been a Member of Congress for nearly 12 years, and this was the first opportunity we had to get a real infrastructure bill to the President's desk.

Oh, President Obama talked about doing it, but in the eight years he never did it, and then President Trump wanted to pass an infrastructure, but Speaker Pelosi would not let his bill come to the floor.

And after months of bickering here, partisan bickering, I appreciate the leadership's decision to keep the social spending known as Build Back Better separate from the bill. Now, this bill we have passed by the legislature is pure infrastructure.

And according to Forbes, the social spending portion is dead in the Senate.

So when I am back in West Virginia, I hear great things from stakeholders everywhere I go about this bill, from Marie Prezioso with the West Virginia Water Development Authority and Todd Grinstead with the West Virginia Rural Water Association. They talk about communities like Aurora, Fairview, Paw Paw, and McDowen, and Wayne County, McDowen and Wyoming County. These communities are struggling, Mr. Chairman.

According to the West Virginia DEP, our State had nearly 2,500 miles of contaminated water streams. So this bipartisan infrastructure bill is a once in a lifetime opportunity for these small and rural communities to get clean, affordable water.

But this committee is going to need to conduct rigorous oversight. Democrats unfortunately have a history of prioritizing climate change over drinking water and putting urban interests over those of rural communities.

For example, President Obama cut funding for the State Revolving Fund for rural areas by half.

So these communities must be vigilant to ensure, and this committee particularly and to you, Mr. Chairman; we have got to be vigilant that the small and rural communities are not left out again.

So I look forward to today's discussion, and I yield back the balance of my time.

[The prepared statement of Mr. McKinley follows:]

PREPARED STATEMENT OF HON. DAVID B. MCKINLEY

**Opening Statement for Ranking Member David B. McKinley
Subcommittee on Environment and Climate Change
Hearing on “Trusting the Tap: Upgrading America's Drinking
Water Infrastructure.”
March 9, 2022**

Thank you, Mr. Chairman. According to the report card prepared by the American society of civil engineers, states like Nevada and Oregon were ranked first and second for the quality of their infrastructure. So it may be understandable that they had reservations about funding the infrastructure bill. But what about Mississippi and West Virginia? Ranked dead last. Their drinking water alone was given a “D,” these states are desperate.

Nearly everyone in congress says America needs better infrastructure, but when they were given the chance to vote for it, it didn't pass unanimously. Mr. Chairman, I've been a Member of Congress for nearly 12 years, and this was the first opportunity we had to get a real infrastructure bill to the President's desk.

President Obama talked about it, but it never happened. President Trump wanted to, but Pelosi wouldn't let his bill come to the floor. And after months of partisan bickering, I appreciate the leaderships' decision to keep social spending — known as build back better — separate from the bill. It's now pure infrastructure, and according to Forbes, the social spending bill is dead in the senate.

So when I'm back in West Virginia, I hear great things from stakeholders everywhere I go about this bill. Like Marie Prezioso with the West Virginia Water Development Authority and Todd Grinstead with the West Virginia Rural Water Association. They talk about communities like Fairview, Aurora, Pawpaw, And Wyoming and McDowell counties.

Those communities are struggling Mr. Chairman, and according to the West Virginia DEP our state has nearly 2,500 miles of contaminated streams. So, this bipartisan infrastructure bill is a once-in-a-lifetime opportunity for these small and rural communities to get affordable and clean water. But this committee will need to conduct rigorous oversight

Democrats have a history of prioritizing climate change over drinking water and putting urban interests ahead of rural ones. For example, President Obama cut funding for the state revolving funds for rural areas by half. So, this committee must be vigilant to ensure that small and rural communities are not left out again. I look forward to today's discussion. Thank you and I yield back

Mr. TONKO. The gentleman yields back.

The Chair now recognizes Representative Pallone, the hard-working chair of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairman Tonko, particularly for that hard-working remark. Thank you.

Mr. TONKO. It is true.

Mr. PALLONE. Today the committee is continuing its ongoing work to ensure all Americans have access to safe and clean drinking water.

And when you think about it, there is no more basic necessity in our lives than drinking water. We all need to be able to trust that when we turn the tap on, our faucets have water coming out that is safe for us and for our families.

Unfortunately, for far too long we failed to properly invest in our aging drinking water infrastructure, and as Chairman Tonko mentioned, the American Society of Civil Engineers just last year gave our Nation's water infrastructure a C-minus grade, and that is simply unacceptable for a Nation as prosperous as ours.

Fortunately, last November this Congress acted by passing the bipartisan infrastructure law, which included \$30 billion to strengthen and rebuild our drinking water infrastructure, and this is the single largest Federal investment in our drinking water infrastructure in our Nation's history.

Specifically, the law provides over \$11 billion to bolster the Drinking Water State Revolving Fund, our main funding mechanism for drinking water projects, and the Drinking Water SRF provides flexibility to States to address pressing drinking water challenges. It is imperative that we leverage this flexibility to ensure that we are lifting up communities.

And while the SRF has been a critical lifeline, there are many small, rural, and underserved communities that face barriers to access this Federal funding source. Our ranking member mentioned that, and those communities, which often have the greatest needs, will benefit from additional resources and assistance, and we should ensure that they can tap into them.

Now, the bipartisan infrastructure law also includes \$15 billion to help accelerate the inventory and removal of lead service lines, which is one of my priorities as chairman. Earlier this year, I was pleased to see Newark, and we have Director Adeem here representing Newark in my home State. They completed their efforts to replace all of the lead service lines.

But millions of other Americans in other places are being exposed to lead in drinking water through lead service lines, and this is extremely troubling considering that there is no safe lead exposure level.

All of these lead pipes must be replaced, and this funding will provide a huge boost in our efforts to finally address the long-standing issue of lead in drinking water.

The law also allocates \$9 billion to remove dangerous PFAS chemicals, also known as “forever chemicals,” from drinking water, and this funding will help water systems cleanup PFAS contamination that is becoming more prevalent and is linked to adverse health effects.

This investment will accelerate current infrastructure projects and kickstart new, often costly projects.

So with the bipartisan infrastructure law, we are not only modernizing our infrastructure in a more resilient way for the future, but we are also strengthening our local economies.

With provisions to expand the use of American iron and steel and prevailing wage protections, the bipartisan infrastructure law will help create good paying jobs across industries and bolster domestic manufacturing.

But as I said, clean, safe drinking water is, in my opinion, a fundamental right, and the bipartisan infrastructure law provides our Nation with the necessary resources to take a long overdue step toward making safe drinking water a reality for all, including disadvantaged communities that have been disproportionately impacted by environmental contamination.

I just wanted to take a minute to say that I appreciate all our witnesses today, but especially Newark’s Water and Sewer Utilities Director Kareem Adeem. Thanks to his leadership, along with the mayor, Mayor Baraka, and Governor Murphy and our congressional delegation, Newark successfully completed the replacement of all of its lead lines earlier this year.

And I really want to commend you for your work, Director Adeem. Mayor Baraka made this a major point that he wanted to do this, and you know, Congress helped in other ways. We actually had to redirect some of the funds from the Clean Water Act with legislation that I had introduced in the House and Senator Booker championed in the Senate and Donald Payne also. I have to mention Congressman Payne who represents Newark.

But I still think it was amazing that you did this so quickly, that you were able to do it so quickly. It really was amazing.

So thank you again and thank you for being here.

We have an incredible opportunity to build resilience and invest in the future of communities. We also have an opportunity to continue to work on a bipartisan basis to ensure these funds have a long-lasting impact, which is why Chairman Tonko is having this hearing today.

And while this funding is a critical step in closing the resource gap for drinking water, there is a lot more we can do and should do to ensure that every person can trust the water that is coming out of the tap.

So thank you, again, Chairman Tonko. This is a very important hearing.

I yield back.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Committee on Energy and Commerce

Opening Statement as Prepared for Delivery
of
Chairman Frank Pallone, Jr.

Hearing on “Trusting the Tap: Updating America’s Drinking Water Infrastructure”

March 29, 2022

Today, the Committee is continuing its ongoing work to ensure all Americans have access to safe and clean drinking water. When you think about it – there is no more basic necessity in our lives than drinking water. We all need to be able to trust that when we turn the tap of our faucets, the water coming out is safe for us and our families.

Unfortunately, for far too long, we failed to properly invest in our aging drinking water infrastructure. As a result, the American Society of Civil Engineers just last year gave our nation’s water infrastructure a “C-” grade. That’s simply unacceptable for a nation as prosperous as ours.

Fortunately, last November this Congress acted by passing the Bipartisan Infrastructure Law, which included \$30 billion to strengthen and rebuild our drinking water infrastructure. This is the single largest federal investment in our drinking water infrastructure in our nation’s history.

Specifically, the law provides over \$11 billion to bolster the Drinking Water State Revolving Fund (SRF) – our main funding mechanism for drinking water projects. The Drinking Water SRF provides flexibility to states to address pressing drinking water challenges. It is imperative that we leverage this flexibility to ensure that we are lifting up communities. While the SRF has been a critical lifeline, there are many small, rural, and underserved communities that face barriers to access this federal funding source. Those communities, which often have the greatest needs, will benefit from additional resources and assistance, and we should ensure they can tap into them.

The Bipartisan Infrastructure Law also includes \$15 billion to help accelerate the inventory and removal of lead service lines, which is one of my priorities as Chairman. Earlier this year, I was pleased to see Newark, in my home state of New Jersey, complete its efforts to replace all of its lead service lines, but today millions of other Americans are being exposed to lead in drinking water through lead service lines. This is extremely troubling considering that there is no safe lead exposure level. All these lead pipes must be replaced, and this funding will provide a huge boost in our efforts to finally address the long-standing issue of lead in drinking water.

The law also allocates \$9 billion to remove dangerous PFAS chemicals, also known as forever chemicals, from drinking water. This funding will help water systems clean up PFAS

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contamination that is becoming more prevalent and is linked to adverse health effects. This investment will accelerate current infrastructure projects and kick start new, often costly projects.

With the Bipartisan Infrastructure Law, we are not only modernizing our infrastructure in a more resilient way for the future, but we are also strengthening our local economies. With provisions to expand the use of American iron and steel and prevailing wage protections, the Bipartisan Infrastructure Law will help create good paying jobs across industries and bolster domestic manufacturing.

Clean, safe drinking water is a fundamental human right and the Bipartisan Infrastructure Law provides our nation with the necessary resources to take a long overdue step toward making safe drinking water a reality for all, including disadvantaged communities that have been disproportionately impacted by environmental contamination.

I appreciate all our witnesses for being here today including Newark's Water and Sewer Utilities Director Kareem Adeem. Thanks to Director Adeem's leadership, along with Mayor Baraka, Governor Murphy, and our Congressional delegation, Newark successfully completed the replacement of all of its lead lines earlier this year. I commend you for your work, Director Adeem.

We have an incredible opportunity in this moment to build resiliency and invest in the future of communities. We also have an opportunity to continue to work on a bipartisan basis to ensure these funds have a long-lasting impact. While this funding is a critical step in closing the resource gap for drinking water, there is much more we can and should do to ensure that every person can trust the water coming out of their tap.

Thank you.

Mr. TONKO. The gentleman yields back.

Now the Chair will recognize Representative Buddy Carter of Georgia, who is speaking on behalf of Mrs. Rodgers, the ranking member of the full committee.

Mr. Carter, you are recognized for 5 minutes please.

OPENING STATEMENT OF HON. EARL LEROY "BUDDY" CARTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. CARTER. Thank you, Mr. Chairman, and thank all of our witnesses for being here. We appreciate your attendance very much.

From Day One I urged for there to be transparency on the massive amounts of money this Congress has been providing to the executive branch. Record government spending is fueling inflation, and it is out of control.

From the gas pump to the grocery store, it is making it harder for people to pay for basic expenses to get by. We just learned that funds from the Democrats', quote, "American Rescue Plan," have been spent on things like a hotel, a ballpark, and ski slopes.

This is the kind of waste we warned about when Democrats acted alone to spend \$2 trillion. Where is the accountability we have been asking for?

Whether it is over this \$2 trillion and inflationary spending or over this Senate infrastructure law, there must be proper oversight over how we spend people's hard-earned taxpayer dollars.

American families who are struggling to afford gas, cars, food, new clothes, and heating their homes, they deserve the certainty that their duly elected representatives are leading to ensure funds are not wasted or abused. We should all be asking if the Federal Government wants to spend more money, can the American people afford it.

Today is an important opportunity for this subcommittee to review and conduct oversight over the Safe Drinking Water Act provisions in the Senate infrastructure law, and I appreciate the chairman scheduling it.

That being said, we are missing an important witness, the Environmental Protection Agency. The EPA is responsible for implementing the law we are discussing today. I hope, Mr. Chairman, that you will work with us to invite EPA to testify about its implementation of the \$35 billion in funding for safe drinking water programs.

So let me be clear. My stated concerns with the drinking water provisions in the Senate infrastructure law are about transparency and accountability. Without question, I want our communities to have safe drinking water.

I was a mayor one time. I get it. I understand how important it is. Making that water safe though costs money. Some communities, because it requires a monetary investment, again, I get it and I understand. I was a mayor of a growing city.

Because it requires a monetary investment, they need help from the Federal Government, but simply throwing money at drinking

water challenges using a Federal one-size-fits-all approach is no way to solve the problems that many communities face.

My concerns start with the large amounts of spending, but also include whether EPA is using this bill as an excuse to overtake drinking water program management, spending flexibility, and utility operations.

These are all areas that traditionally fall to local governments and to the States. A Federal takeover would be unprecedented and troubling.

My concerns with the Safe Drinking Water provisions in the Senate infrastructure bill go further. First, whether they impact the law's mandates on required spending. Promoting purchasing power for communities should be our highest aim.

If we swallow up these goals with requirements that strain the ability to complete necessary projects, we do both taxpayers and those serving communities a disservice.

Second, how will this additional new funding and EPA's guidance affect existing State Drinking Water Revolving Funds?

And will any of the changes relate only to the Senate infrastructure funding or would they have long-term impacts to project prioritization on the State Revolving Fund?

Third, will this law improve cybersecurity at drinking water plants or does it just increase the burdens on utilities and strain their resources?

Fourth, there are questions about the lead service line replacement provisions. For example, do EPA and the States know where the lead service lines are?

And will the agency ensure that millionaires do not benefit under this program?

Finally, there are concerns about rural communities' role in the funding. Will rural communities have access to funding and technical assistance or could they fall just outside of the definition of disadvantaged communities?

The Senate infrastructure law has both substantial authorizing and appropriations provisions. So we have a lot to cover today. Again, I hope in a future hearing the EPA is here to formally answer questions about its use of \$35 billion in additional funding.

This is important to ensure accountability and understand any changes that may be needed in the law.

Thank you, Mr. Chairman, and I look forward to our conversation today, and I yield back.

[The prepared statement of Mr. Carter follows:]

PREPARED STATEMENT OF HON. EARL LEROY "BUDDY" CARTER

**Opening Statement for Rep. Earl L. "Buddy" Carter
Subcommittee on Environment and Climate Change
Hearing on "Trusting the Tap: Upgrading America's Drinking
Water Infrastructure."
March 9, 2022**

Good morning. Thank you, Mr. Chairman.

Welcome to all our witnesses.

OUT OF CONTROL SPENDING

From Day 1, I urged for there to be transparency on the massive amounts of money this Congress has been providing to the Executive Branch.

Record government spending is fueling inflation.

From the gas pump to the grocery store, it's making it harder for people to pay for basic expenses to get by.

We just learned that funds from the Democrats' quote "American Rescue Plan," have been spent on things like a hotel, a ballpark, and ski slopes.

This is the kind of waste we warned about when Democrats acted alone to spend \$2 trillion.

Where's the accountability we've been asking for?

Whether it is over this \$2 trillion in inflationary spending or over the Senate Infrastructure law, there must be proper oversight over how we spend people's hard earned taxpayer dollars.

American families who are struggling to afford gas, cars, food, new clothes, and heating their homes... deserve certainty that their duly-elected representatives are leading to ensure funds aren't wasted or abused.

We should all be asking if the federal government wants to spend more money, can the American people afford it?

MOST IMPORTANT WITNESS IS MISSING

Today, is an important opportunity for this subcommittee to review and conduct oversight over the Safe Drinking Water Act provisions in the Senate Infrastructure Law and I appreciate the Chairman scheduling it.

That being said, we are missing an important witness. The Environmental Protection Agency (EPA).

The EPA is responsible for implementing the law we are discussing today.

I hope, Mr. Chairman, that you will work with us to invite EPA to

testify about its implementation of the \$35 billion in funding for safe drinking water programs.

CONCERNS WITH DRINKING WATER PROVISIONS IN IJA

So, let me be clear: my stated concerns with the drinking water provisions in the Senate Infrastructure law are about transparency and accountability.

Without question, I want our communities to have safe drinking water.

Making that water safe costs money.

Some communities, because it requires a monetary investment, need help from the Federal government.

But simply throwing money at drinking water challenges, using a federal, one-size-fits-all approach, is no way to solve the problems many communities face.

My concerns start with the large amounts of spending, but also include whether EPA is using this bill as an excuse to overtake drinking water program management, spending flexibility, and utility operations.

These are all areas that traditionally fall to local governments and the states. A federal takeover would be unprecedented and

troubling.

My concerns with the safe drinking water provisions in the Senate Infrastructure law go further.

First, what are the impacts of the law's mandates on required spending?

Promoting purchasing power for communities should be our highest aim. If we swallow up this goal with requirements that strain the ability to complete necessary projects, we do both taxpayers and those serving communities a disservice.

Second, how will this additional new funding and EPA's guidance affect existing State drinking water revolving funds? And will any of the changes relate only to the Senate Infrastructure funding or will they have long-term impacts to project prioritization or the State Revolving Fund?

Third, will this law improve cybersecurity at drinking water plants or does it just increase the burdens on utilities and strain their resources?

Fourth, there are questions about the lead service line replacement provisions. For example, do EPA and the states know where the lead service lines are, and will the agency ensure that millionaires do not benefit under this program?

Finally, there are concerns about rural communities' role in this funding. Will rural communities have access to funding and technical assistance, or could they fall just outside of the definition of disadvantaged communities?

The Senate Infrastructure Law has both substantial authorizing and appropriations provisions, so we have a lot to cover today.

Again, I hope in a future hearing the EPA is here to formally answer questions about its use of \$35 billion in additional funding.

This is important to ensure accountability and understand any changes that may be needed in the law.

Thank you, I look forward to our conversation today.

Mr. TONKO. The gentleman yields back.

The Chair reminds members that, pursuant to committee rules, all Members' written opening statements shall be made part of the record.

I now introduce the witnesses for today's hearing. We have Mr. Eric Olson, Senior Strategic Director for Health and Food, Natural Resources Defense Council.

We have Ms. Lori Mathieu, Public Health Branch Chief of the Environmental Health and Drinking Water Branch of Connecticut's Department of Public Health, and President of the Association of Drinking Water Administrators.

Mr. Kareem Adeem, Director of Water and Sewer Utilities for the city of Newark, New Jersey.

And on Zoom, we have Mr. Richard Diaz, Midwest Regional Field Organizer for the BlueGreen Alliance.

And then finally, Mr. Jim McGoff, Chief Operating Officer and Director of Environmental Programs, Indiana Finance Authority, on behalf of the Council of Infrastructure Financing Authorities.

We welcome each and every one of you here today and on Zoom.

And at this time the Chair will recognize each witness for 5 minutes to provide the opening statements.

Before we begin, I would like to explain the lighting system. In front of our witnesses is a series of lights. The light will initially be green. The light will turn yellow when you have 1-minute remaining. Please begin to wrap up your testimony at that point. The light will turn red when your time expires.

Since we have witnesses appearing virtually, I need to ask my colleagues in the hearing room to mute themselves whenever they are not directly speaking during their Q&A portion so that we can, indeed, clearly hear the witnesses' responses.

So with that, we now recognize Mr. Olson for 5 minutes please to provide your opening statement, and again, welcome.

STATEMENT OF ERIK D. OLSON, SENIOR STRATEGIC DIRECTOR FOR HEALTH AND FOOD, NATURAL RESOURCES DEFENSE COUNSEL; LORI J. MATHIEU, PUBLIC HEALTH BRANCH CHIEF, ENVIRONMENTAL HEALTH AND DRINKING WATER BRANCH, CONNECTICUT DEPARTMENT OF PUBLIC HEALTH, AND PRESIDENT, ASSOCIATION OF DRINKING WATER ADMINISTRATORS; KAREEM ADEEM, DIRECTOR OF WATER AND SEWER UTILITIES, THE CITY OF NEWARK, NEW JERSEY; RICHARD DIAZ, MIDWEST REGIONAL FIELD ORGANIZER, BLUEGREEN ALLIANCE; AND JAMES P. MCGOFF, CHIEF OPERATING OFFICER AND DIRECTOR OF ENVIRONMENTAL PROGRAMS, INDIANA FINANCE AUTHORITY, ON BEHALF OF COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

STATEMENT OF ERIK D. OLSON

Mr. OLSON. Thank you, Mr. Chairman, and thank Ranking Member McKinley and all members of the committee.

I am Eric Olson with NRDC, Natural Resources Defense Counsel.

And I wanted to emphasize that this bipartisan infrastructure law—I will call it “the bill”—really makes historic investments, and I appreciate the bipartisan nature of the investments that are being made and appreciate the ranking member’s vote in favor of this as well as many other members of this committee.

It is an historic investment that is going to yield benefits for a long time.

One issue that we talked about, heard about a little bit already, is the \$15 billion that are going to be invested to remove these lead pipes, which is basically like drinking water out of a lead straw. We do not want to be doing that.

And the good news is that that investment is going to take a big bite out of this problem. But \$15 billion is about a third of what we need. The reconciliation bill that this body passed some time ago would add an additional \$10 billion that is really urgently needed money in addition.

And I wanted to point out that this historic investment really is something that is broadly supported. All the polling shows that about 90 percent of the public supports investing in things like pulling out all of these lead pipes.

So this is something that is both good sense from a public support standpoint, but also of course from a public health standpoint.

One thing that we really need to do, as several members have already mention, is make sure that this money is being targeted well to the disadvantaged communities that need it.

And I will emphasize that the States get the vast majority of this money. This is not going to be administered by the Federal Government in most cases. Most of that money is going out to each individual State.

The State defines what a disadvantaged community is, and the State is going to be allocating the money.

So we need to make sure that that money is being targeted where it is needed most, be it a rural community that has urgent need or be it a large city that may have a pocket of low-income people that really need to get that help.

The bill also includes, as has been mentioned by a couple of members, \$9 billion to address these so-called PFAS, the chemicals that have been around for now many years and are just starting to show up in West Virginia, New York, many other States. North Carolina has a severe problem with PFAS contamination. Basically every State has this.

We believe that it is going to be a top priority to make sure that is addressed.

In addition, there are a lot of good jobs that are going to be created. You are going to hear from Mr. Adeem in Newark who has created a lot of jobs of local people who are trained by a local union.

These jobs are very well paying. We hope that they are going to be permanent. I cite in my testimony a study that found over 560,000 job-years that are going to be created just by pulling out the lead pipes. Those are going to be good paying jobs under this infrastructure legislation. It is crucial that that go forward.

But I will point out that industry estimates are that the total cost is going to be a trillion dollars for all of our drinking water infrastructure fixes. That is a big investment. We are going to need more than has already been put on the table. We have got an historic investment, but there is a lot more needed.

Nine to 12 million lead service lines still in the ground; lead in schools, which this legislation did not quite tackle. There are widespread PFAS contamination problems, and 30 million people are served by systems that are in violation of the Safe Drinking Water Act. All of that needs to be addressed.

In addition, we have got some pockets in Appalachia and Texas border communities, low income, deep South
[inaudible]. We need to address this.

[Audio malfunction.]

We also need to tackle the fact that with climate change there are going to be more and more challenges that are going to be coming. Texas' recent experience with losing huge swaths of the State and of Mississippi with no water and now power as a result of a storm. That is an initial indication that we have got this huge problem.

So we envision a future where every person in America gets safe, sufficient, and affordable drinking water. That is something that can be done. Newark is showing that it can be done in a big city. It can be done in rural communities. That is something that we ought to tackle and make the investments to make happen.

Thank you.

[The prepared statement of Mr. Olson follows:]



**TESTIMONY OF
ERIK D. OLSON
SENIOR STRATEGIC DIRECTOR,
HEALTH AND FOOD
NATURAL RESOURCES DEFENSE COUNCIL**

**BEFORE THE
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENVIRONMENT & CLIMATE CHANGE
UNITED STATES HOUSE OF REPRESENTATIVES**

**HEARING ENTITLED
"TRUSTING THE TAP: UPGRADING AMERICA'S DRINKING WATER INFRASTRUCTURE"**

MARCH 29, 2022

SUMMARY

- The good news is that the new Bipartisan Infrastructure Law—the BIL, or formally the Infrastructure Investment and Jobs Act—will invest about \$30 billion to address some of the urgent backlog in necessary repairs and upgrades for our drinking water systems.
- Decades of neglect and divestment have created an enormous buildup of badly needed repairs. Congress and the Biden Administration demonstrated the courage and will to make historic and truly significant investments in infrastructure. These investments will pay dividends well into the future.
- This is a historic investment that deserves celebration and will help many communities to address their pressing needs. We must ensure that these funds, especially grants, are prioritized to help the disadvantaged communities that need it most.
- The BIL will invest \$15 billion to help remove lead service lines across the country. These lead pipes threaten the health of tens of millions of Americans, especially children and low-income communities. The BIL's investment will take a significant bite out of this problem; additional funding including the \$10 billion for lead in drinking water included in the House-passed reconciliation bill (H.R. 5376) is needed.
- The BIL also invests \$9 billion in to address emerging contaminants in drinking water, principally to help address the PFAS contamination crisis. Another \$11.7 billion is invested via the Drinking Water State Revolving Fund for drinking water priorities.
- Infrastructure investment creates good jobs. For example, a 2021 study found that investing in replacing our lead service lines alone would create 560,800 job years—providing good-paying jobs for American workers.
- Safe drinking water we all take for granted in the U.S cannot be considered a given. Much of our nation's water infrastructure is like a rusty decades-old car that hasn't been maintained or had an oil change or brake job for years. It may still be barely running, but we need to make major investments to upgrade and fix it, or it will gradually die and may even catastrophically fail.
- The \$30 billion BIL investments are historic, though according to industry estimates \$1 trillion will be needed to address drinking water infrastructure needs. The profound level of disrepair means that more, like included in the House reconciliation bill is needed.
- Despite our successes and efforts to date, drinking water contamination still wreaks devastating impacts. There are 9 to 12 million lead service lines, lead contamination of school drinking water is widespread, and tens of millions, perhaps more than 100 million Americans, are drinking PFAS in the tap water.

- An estimated 7.1 to as many as 12 million Americans are sickened annually by pathogen-contaminated tap and other water. That doesn't include the impacts of toxics. Tens of millions are served by water systems violating EPA's health standards.
- There are three underlying causes: (1) underinvestment in our water infrastructure so water systems too often rely on outdated and inadequate treatment and distribution systems; (2) a broken Safe Drinking Water Act that leaves unregulated widespread and hazardous contaminants like PFAS and allows weak enforcement the drinking water standards that do exist; and (3) poor to nonexistent controls on many major water polluters. Often low-income areas lack any access to safe piped drinking water.
- Protecting water sources helps to safeguard health and reduces treatment costs.
- There are increasing challenges to water infrastructure from extreme weather, droughts.
- We envision a day when every person in this great nation—whether a resident of a major city, a small rural town, a Tribal community, or an underserved impoverished isolated community—will drink safe and affordable tap water. The BIL takes a major historic step to help us move forward towards this goal, but more will be needed.

Recommendations:

1. Implement the BIL by investing first in those communities that need it most.
2. Invest additional resources in fixing our water infrastructure, paying special attention to the affordability and needs of lower-income and disproportionately affected communities.
3. Fix lead in our water, including removing all lead service lines, fixing the Lead & Copper Rule, and addressing lead in schools and childcare centers.
4. Fix the broken Safe Drinking Water Act to ensure controls on key contaminants like the class of PFAS.
5. Protect source water to reduce infrastructure costs and health and environmental harms.
6. Protect water infrastructure from extreme weather events and possible terror attacks.
7. Invest in technologies including broad-spectrum treatment and real-time and other advanced monitoring.
8. Let citizens act immediately to address imminent & substantial health endangerment.
9. Vigorously enforce the Safe Drinking Water Act.

I. Introduction

Good morning Chairman Tonko, Ranking Member McKinley and members of the Subcommittee. I am Erik D. Olson, Senior Strategic Director for Health and Food at the Natural Resources Defense Council (NRDC). I have worked on Safe Drinking Water Act issues for over 35 years, beginning with my service as an attorney in the U.S. Environmental Protection Agency's Office of General Counsel in the 1980's, and continuing as a former member of the EPA's National Drinking Water Advisory Council and as a member of numerous EPA advisory committees relating to drinking water. I also have authored numerous reports and served on many expert panels on drinking water, including as an advisor to the Government Accountability Office's experts' assessment of how to improve water system security after 9/11.¹ I appreciate the opportunity to testify.

II. The Bipartisan Infrastructure Law: An Overview

Since my last testimony before this subcommittee a few years ago, there have been some exciting and important developments, in no small measure due to the arduous efforts of many members of this body. The new Bipartisan Infrastructure Law—the “BIL” or formally the Infrastructure Investment and Jobs Act²—will invest about \$30 billion over the next five years to address some of the urgent backlog in necessary repairs and upgrades for our drinking water systems. This is a historic investment that deserves celebration and will help many communities to address their pressing needs. It must be implemented to ensure that the funds, especially grants, are prioritized to help the disadvantaged communities that need it most.

EPA's recent “Implementation Memo,”³ issued on March 8, 2022, properly emphasizes the importance of steering BIL funding, and particularly the 49 percent of the drinking water State Revolving Fund (DWSRF) resources dedicated to grants or forgivable loans, to those disadvantaged communities that need the funds most. In the past, too often lower-income communities in rural as well as some urban areas have been unable to access federal water infrastructure funds due to state policies and practices that made it difficult or impossible

to get these funds. For example, some states established policies that they would only reimburse water systems for expenditures already made or buy bonds already issued. But many disadvantaged communities lack the resources to pay for the needed repairs up front or to float bonds in the first place. Similarly, low-income communities also often have a hard time affording to hire engineers and other experts to help them prepare sound applications for funds or are not even aware of the availability of funding. Some states have defined “disadvantaged community” in a way that excludes some water systems from obtaining grants—such as larger systems that as a whole may not meet the criteria for “disadvantaged” but that have substantial populations in their service areas that are impoverished. States and EPA must do everything possible to provide technical assistance to disadvantaged communities. They must revisit their definitions of disadvantaged community and prioritize public health investments over politically expedient economic development. States also must eliminate unnecessary impediments to lower-income communities or disadvantaged portions of a service area to obtain additional subsidies under the BIL and the DWSRF. EPA’s new BIL Implementation Memo takes important strides towards these goals, but much will depend upon EPA’s and states’ willingness to change business as usual to reach disadvantaged communities most in need of assistance.

The BIL will invest \$15 billion over the next 5 years to help remove lead service lines across the country.⁴ As discussed below, these lead pipes, which connect the water main in the street to residences, threaten the health of tens of millions of Americans, especially children and low-income communities. The BIL’s investment will take a significant bite out of this problem, though the additional funding including the \$10 billion included in the House reconciliation bill (H.R. 5376) is needed. Moreover, EPA and states must be clear that partial lead service line replacements—in which a water system replaces a portion of the lead pipe and leaves part of it in use—are not allowed, as EPA’s Implementation Memo states. These “partials” can cause a substantial increase in lead levels at the tap,⁵ and are ill-advised, though many water systems continue to use this technique.

It also is important that water systems not charge individual homeowners for replacing the lead service line. It is well established—including in a recent published, peer-reviewed

journal article⁶—that charging property owners for lead service line replacements results in an environmental injustice. Low-income homeowners who can't afford to pay for replacement and tenants whose landlords generally refuse to pay, do not get their lead service line fully replaced and continue to drink lead-contaminated water. Wealthier people who can more readily afford replacement, do so disproportionately and do not suffer the same fate. Moreover, programs that require extensive documentation and justification for obtaining a subsidy for low-income people to replace their lead service line create extensive transaction costs and delays, place burdens on low-income families that make it unlikely they will apply, and overall result in a much less efficient and less equitable replacement program. For these reasons, Michigan's strengthened state Lead and Copper Rule sets an example by requiring all lead service lines to be fully replaced and for water systems to cover the full costs.

We strongly support the more efficient, faster, and more effective approach like that used in Newark, New Jersey. There, the utility paid for the full lead service line replacement, sweeping into communities and swiftly replacing in less than 3 years more than 23,000 lead lines. The city replaced lead lines on whole streets at a time with local workers trained by the local union to complete the task. They also used less disruptive methods for replacing the lines, generally using the "pull through" method that requires digging only small holes in front of the home instead of a large trench from the main to the home. NRDC and more than a dozen health, environmental and environmental justice organizations recently issued a brief set of "Principles for Lead Service Line Replacement"⁷ based on our learnings from Newark, Flint, Pittsburgh, Benton Harbor, Washington D.C., and other cities. Newark's approach and our recommended principles will result in more efficient, less expensive, faster, more equitable and more effective results.

The BIL also invests \$9 billion in to address emerging contaminants in drinking water, and an additional \$1 billion to address these contaminants under the Clean Water Act, principally to help remedy the widespread PFAS contamination crisis, which I discuss later in this testimony.⁸ Another \$11.7 billion is invested through the Drinking Water State

Revolving Fund for state drinking water priorities, and a separate \$11.7 billion is invested under the Clean Water State Revolving Fund to address water pollution discharges.⁹

Infrastructure investment creates good jobs. For example, a 2021 study¹⁰ found that investing the \$45 billion the Biden Administration has called for in removing all lead service lines over 10 years would create and support 56,080 jobs annually over that decade, or a total of 560,800 job-years. These include good-paying direct jobs—construction workers, plumbers, pipefitters, heavy equipment operators—as a direct result of this activity. It also includes thousands of jobs created throughout the value chain and jobs created when these workers spend their paychecks. Overall, a study by the American Society for Civil Engineers found that investing to fix and update our water infrastructure would create a total of 800,000 jobs, and disposable income would rise by over \$2,000 per household.¹¹

III. Urgent Backlog in Water Infrastructure Needs

The safe drinking water we all take for granted in the U.S cannot be considered a given. Much of our nation’s water infrastructure is like a rusty decades-old car that hasn’t been maintained or had an oil change or brake job for years. It may still be barely running, but we need to make major investments to upgrade and fix it, or it will gradually die and may even catastrophically fail.

Congress’ investment in American water infrastructure could not have come at a better time. The American Society of Civil Engineers (ASCE) has been ringing the alarm bell about our water infrastructure for decades,¹² with its troubling report cards giving our drinking water and wastewater infrastructure a grade of “D”¹³ or “C-”¹⁴ every four years. The engineers highlight serious problems that result from the lack of investment in our water infrastructure, noting that pipes and mains are often 100 years old and nearing the end of their useful life, causing frequent pipe failures and other problems.

A. Aging & Deteriorating Drinking Water Infrastructure

There are about 250,000 to 300,00 water main breaks per year due to deteriorating and poorly maintained underground drinking water pipes.¹⁵ Even more water is lost to unseen leaks and breaks that never reach the surface. Water losses waste not only enormous amounts of this precious resource, but they also can cause serious damage to roads and property, they can pose significant public health risks. For example, particularly when water mains are close in proximity to sewer lines, fecal contamination can get into the drinking water after a rupture or pressure loss, posing a threat of causing a waterborne disease outbreak.

In many cities, underground pipes are often a century old or more, and in too many cases municipalities are on track to take 200 years to replace their aging pipes.

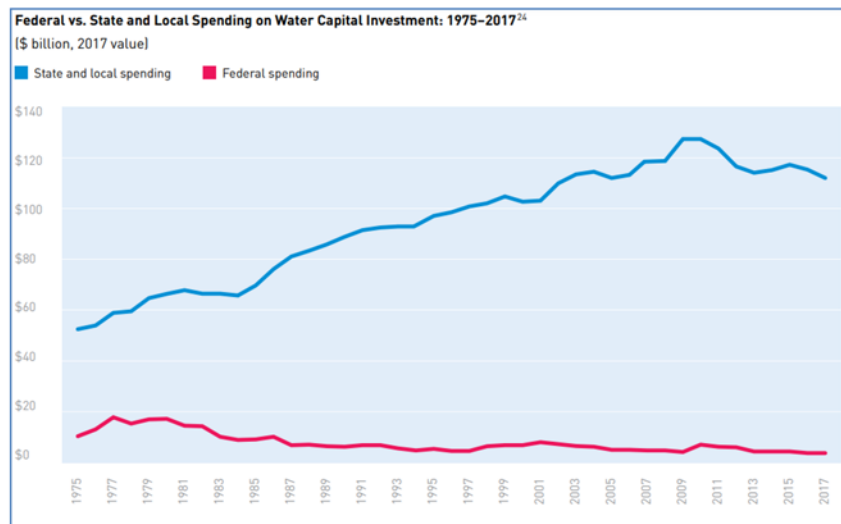
We routinely lose an average of 14 to 18 percent of our drinking water to leaking underground pipes,¹⁶ although this is just an estimate, since standardized auditing and reporting of water loss is not required in most states.¹⁷ In some cases, such as Flint, water loss rates of 40 percent or more have been estimated. These leaks represent an enormous waste of water, energy, treatment chemicals, and money used to collect, treat, and pump the water. Moreover, points of leakage of any size can provide pathways for contaminants to enter the water system during short-term pressure fluctuations, known as “transients.” Thus, leaks can cause water pressure losses, which can, much like catastrophic pressure failures from water main breaks, allow pathogens to get into the drinking water, posing health risks. Improved pipe maintenance and pressure management are important components of both infrastructure stewardship and public health protection.

B. Total Cost to Fix Drinking Water Infrastructure & Need for Resources

The American Water Works Association estimates that it will cost \$1 trillion dollars to upgrade, repair, and maintain our drinking water infrastructure to serve the population as it grows over the next 25 years.¹⁸ Past funding for drinking water infrastructure has not kept pace with the needs. In recent years prior to the BIL, Congress has appropriated about \$2.4 billion a year for water and wastewater infrastructure combined, funding a tiny

fraction of the work needed.¹⁹ The BIL investments will be a major help and boost the federal investment, but prior to that BIL funding the federal share shrank substantially over the past three decades to about 4 percent, as shown in Figure 1. The BIL will raise the federal investment, but states and localities will bear much of the water infrastructure costs, and substantial additional federal investment is needed.

FIGURE 1
WATER INFRASTRUCTURE INVESTMENTS BEFORE ENACTMENT OF THE
2021 BIPARTISAN INFRASTRUCTURE LAW



Source: American Society of Civil Engineers, "The Economic Benefits of Investing in Water Infrastructure," 2020²⁰ This figure does not reflect the substantial boost of nearly \$50 billion in federal investments over 5 years for water infrastructure provided by the 2021 Bipartisan Infrastructure Law, or BIL.

IV. Infrastructure Investment Creates Good Jobs

Congress' wise investment in our water infrastructure in the BIL and other legislation is good economic news. It helps to rebuild the base of the nation's economy, which is highly dependent upon reliable, safe drinking water and wastewater service. Major investment in water infrastructure also creates thousands of good-paying jobs.

For example, it has been estimated that for every \$1 million dollars in state revolving loan fund spending, 16.5 jobs are created.²¹ Thus, it was concluded, investing \$34.7 billion in federal capitalization grants for the SRF would create more than 500,000 jobs.²²

Clearly, the massive \$50 billion in investments in water infrastructure in the BIL, including the \$30 billion invested in drinking water infrastructure alone, will yield enormous jobs benefits. Additional aggressive investment in water infrastructure, such as envisioned in the House-passed reconciliation bill H.R. 5376, would yield more jobs. For example, a recent study found that an investment of \$188.4 billion in water infrastructure (an EPA estimate of wastewater-related infrastructure needs) spread equally over five years would generate \$265.6 billion in economic activity and create close to 1.9 million jobs.²³ The study found, based on the economics literature, that such infrastructure investments "create over 16 percent more jobs dollar-for-dollar than a payroll tax holiday, nearly 40 percent more jobs than an across-the-board tax cut, and over five times as many jobs as temporary business tax cuts."²⁴ Similarly, the study noted earlier by the American Society for Civil Engineers found that investing to fix and update our water infrastructure would create a total of 800,000 jobs, and disposable income would rise by over \$2,000 per household.²⁵

Lead service line replacement funded by the BIL and House-passed reconciliation bill serve as an excellent example of these kinds of good job-creating investments. As briefly mentioned above, a 2021 study by Environmental Entrepreneurs and United Association of Union Plumbers and Pipefitters (UA)²⁶ found that investing the \$45 billion the Biden Administration has called for in removing all lead service lines over 10 years would create and support 56,080 jobs annually over that decade, or a total of 560,800 job-years. Most are good-paying direct jobs such as construction workers, plumbers, pipefitters, heavy

equipment operators—as a direct result of this activity. There also are thousands of jobs created throughout the value chain and when workers spend their paychecks. The BIL’s \$15 billion for lead service line replacements, plus the additional \$10 billion approved by the House-passed reconciliation bill, will generate thousands of jobs for many years to come.

V. Continuing Health Threats from Drinking Water Contamination

Despite our successes and efforts to date, drinking water contamination still wreaks devastating impacts. The safe drinking water we all take for granted in the United States cannot be considered a given. Below I review some of the major contamination threats.

A. Lead Service Lines

Lead in drinking water remains a major issue, as the BIL’s investment in lead service line replacement recognizes. The lead in drinking water crises in Flint, Michigan²⁷, Newark, New Jersey,²⁸ Benton Harbor, Michigan²⁹, Clarksburg, West Virginia,³⁰ and long before those in Washington, DC³¹ are simply a few examples of literally hundreds of communities with lead in drinking water issues. According to NRDC’s published analysis of EPA data, nearly 30 million people in the United States drank water from community water systems that violated the EPA’s Lead and Copper Rule between January 2015 and March 2018. Furthermore, about 5.5 million people got their water from systems that exceeded EPA’s Lead Action Level—which is not a safe level, but rather triggers mandatory additional steps that must be taken by water systems to reduce lead levels. EPA and health experts agree that no amount of lead is safe.

Moreover, these figures are serious understatements of the extent of the lead in drinking water violations problem. As EPA’s former Assistant Administrator for Enforcement Cynthia Giles emphasized in 2020 comments to the agency,

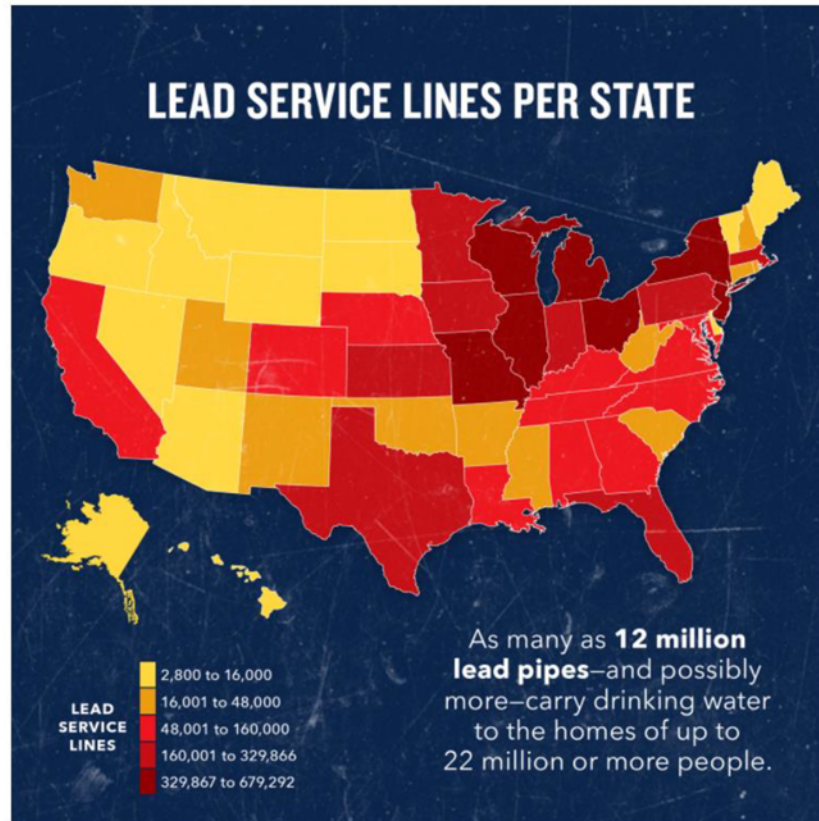
A thorough EPA data audit...found states were only telling EPA about 8% of the health-based lead rule violations. *Eight percent*. That means that 92% of the lead health-based violations were not reported to EPA. Monitoring and reporting violation completeness was hardly better: states were not telling EPA about 71% of

the monitoring and reporting violations. A subsequent review by GAO of more recent EPA audit data found that 84% of the monitoring and reporting violations by community water systems were not reported or were inaccurately reported to EPA. GAO confirmed in 2017 that the problem persists, further noting that more recent detailed information is not available because in 2011 EPA discontinued audits of drinking water data due to lack of funds.³²

There has been a similar shortage of reliable data on how many lead service lines there are in the country. Due to this lack of up-to-date or comprehensive information on the extent of the lead service line problem, in 2021 NRDC conducted a survey of all 50 states requesting information about how many lead service lines they had. After gathering the limited information states could provide and other available data, we estimated that there are from about 9 million to more than 12 million lead service lines nationally.³³ For homes that have lead service lines, they are the predominant source of lead in drinking water.³⁴ As shown in Figure 2, every state is plagued by them, and our study provides state-by-state estimates of the number of these pipes. Unfortunately, our survey found that most states do not track how many of these lead pipes they have, so we had to base our estimates in some states on a voluntary industry survey³⁵ that the Government Accountability Office (GAO) found likely is a “lower-bound estimate.”³⁶

The \$15 billion invested in removing these lead service lines included in the BIL will take a significant bite out of this problem but represents about one-third of the \$45 billion the Biden Administration has estimated³⁷ is needed to replace all lead service lines. Some industry estimates are even higher. That is why the House-passed reconciliation bill includes \$10 billion more to address lead in drinking water. Like the BIL, it also provides a powerful opportunity to create good jobs and promote public health by investing in America.

FIGURE 2



Source: NRDC, "Lead Service Lines are Widespread and Used in Every State," 2021.
<https://www.nrdc.org/lead-pipes-widespread-used-every-state>

B. Lead in School & Childcare Drinking Water

Millions of American children get a significant portion of the water they drink at school or their childcare center. Unfortunately, studies have shown that many schools' drinking

fountains and other outlets children (and often staff) drink from are contaminated with lead. While nationwide data are not available, in the few states that have collected substantial monitoring data, the results are startling. For example, New York State initiated a statewide school drinking water testing program that yielded deeply worrisome findings. The data showed that more than 80 percent of schools statewide found lead contamination exceeding New York's then-established state action level of 15 parts per billion (ppb) in at least one fountain or water outlet.³⁸ Results were often worse outside of New York City than they were in the city.³⁹ The highest school's water tested at 13,100 ppb, and more than 590 fixtures' water was contaminated with between 100 ppb and 13,100 ppb of lead. New York recently dropped its action level to 5 ppb and took other steps towards remediation of contaminated water.⁴⁰ The American Academy of Pediatrics recommends that children drink water containing no more than 1 ppb.⁴¹

Funding is needed to protect the this most vulnerable population (young children) from lead where they are supposed to be learning. If there isn't funding for lead in drinking water in schools and childcare centers, we are leaving open a big route of exposure. We should protect kids in home and at school; the lead funds in the BIL covers homes but we need to address the other place children spend most of their time. This is why the House-passed reconciliation bill includes an additional \$10 million for lead in drinking water, \$9 billion of which can be spent to address either lead in school water or lead service lines.

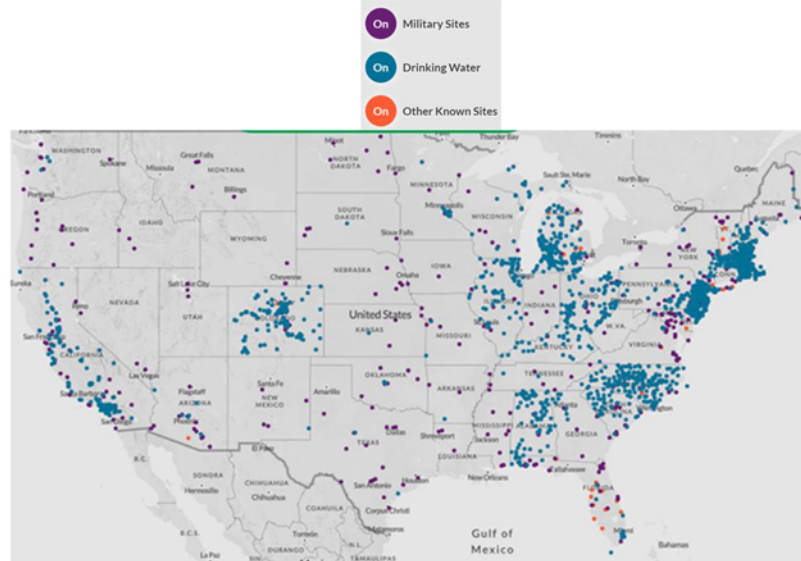
The current patchwork of testing and occasional remediation allows many children across the country to be exposed to lead in drinking water. Lead levels in water can vary wildly from day to day or even hour to hour, due to changes in hydraulics and other variables such as small lead particles lodged inside of plumbing and fixtures that can be released sporadically and unpredictably, causing big spikes in lead levels.⁴² The EPA revised Lead and Copper Rule, discussed later, will not solve this problem, as it only requires extremely limited (indeed grossly inadequate) one-time testing at schools and childcares that is likely to miss the problem in many schools and mislead parents and staff into thinking there is no lead problem. The rule also doesn't require any action to respond to contamination that is found. This rule needs to be fixed.

We suggest a “filter first” approach, whereby schools install filtration stations that are certified to remove lead.⁴³ This approach is less expensive, faster, and more effective than doing comprehensive ongoing lead testing and remediation, which ironically often reintroduces lead into the school drinking water.⁴⁴ Additional funding, as provided in the House-passed reconciliation, would be a significant step forward to addressing this issue.

C. Toxic “Forever Chemicals” PFAS are Found Virtually Everywhere

Of course, as serious as the lead problem is, contamination of drinking water with other contaminants is also widespread. Toxic “forever chemicals” per- and poly-fluoroalkyl substances, or PFAS, also are an emerging and extremely widespread problem. Thankfully, Congress recognized this problem in the BIL by dedicating \$9 billion to help address PFAS and other emerging contaminants in drinking water. This is an unprecedented and welcome investment, but unfortunately that funding will be far from sufficient to fully address the PFAS crisis.

You, your family, and probably every one of your constituents has PFAS in your body. PFAS contamination has become increasingly widespread across the United States. Centers for Disease Control and Prevention (CDC) data show that more than 98 percent of U.S. residents tested are carrying PFAS in their blood or tissue. Millions of Americans who drink elevated amounts of PFAS in contaminated tap water or are otherwise more heavily exposed are at greater risk.

FIGURE 3: PFAS CONTAMINATION SITES

2,854 locations in 50 states and two territories are known to be PFAS-contaminated.

(Source: [EWG & Northeastern University Social Science Environmental Health Research Institute, 2022](#))

These “forever chemicals” are extremely long-lived in the environment. They can concentrate and last a long time in our bodies and in those of animals. In the words of a 3M scientist working on the manufacture of these chemicals, PFOS “is probably more damaging than PCB because it does not degrade, whereas PCB does; it is more toxic to wildlife,” adding that its end point in the environment appeared to be plants and animals, not soil and sediment like PCBs.⁴⁵ Recall that Congress (in an effort led by this Committee and Mr. Dingell) banned PCBs in the original Toxic Substances Control Act in 1976, yet they still pollute our rivers and are still found in our bodies. Regrettably, toxic forever chemical PFAS will be with us and in our environment for generations.

Scientists are finding that certain PFAS likely have adverse effects on our health at vanishingly low levels of exposure—at *low parts per trillion* levels.⁴⁶ PFAS are a class of chemicals estimated to contain more than 9,000 industrial chemicals.⁴⁷ It has been estimated that from about 600⁴⁸ to more than 1,200⁴⁹ PFAS are in active use in the U.S. Subclasses of PFASs are still being discovered in products and in the environment.⁵⁰

According to a 2016 study by Harvard researchers, PFAS are in the drinking water in at least 33 states, and they have been detected at levels exceeding EPA's weak Health Advisories for PFOA and PFOS (two PFAS) in the drinking water of more than 6 million Americans.⁵¹ A more recent analysis by Evans et al. has mapped PFAS contamination of drinking water or ground water in almost 1,400 sites in 49 states.⁵² An earlier EWG analysis of unpublished EPA data estimated that water supplies for more than 100 million Americans may be contaminated with PFAS.⁵³ The number could be higher.

Indeed, there are at least 2,854 PFAS contamination sites nationally, as is illustrated in the map reproduced in Figure 3 in this testimony.⁵⁴ Where scientists look closely, as in Michigan, they find much more PFAS contamination than previously identified.⁵⁵ These contamination sites blanket the landscape from hundreds of sites in Michigan,⁵⁶ to the former Chanute Air Force Base in Champaign County, Illinois,⁵⁷ Hoosick Falls, NY,⁵⁸ Parkersburg, WV,⁵⁹ and the Cape Fear River in NC.⁶⁰ PFAS also are found in many consumer products ranging from carpets and clothing to cookware and cosmetics, as well as in food, often due to food packaging.⁶¹ These uses result in multiple—and cumulative—routes of exposure in the home including household dust, indoor air, and food.

Numerous studies, including a massive review of nearly 70,000 people exposed to PFAS in their drinking water in West Virginia,⁶² and many other human (epidemiological) and animal studies,⁶³ suggest that the health impacts from these “hot spots” may be formidable.

Scientists have found certain PFAS may increase the risk of: thyroid and liver disease; asthma; lower fertility in women; high blood pressure or pre-eclampsia in pregnant women; increased cholesterol levels; decreased ability to respond to vaccines; and lower infant birth weights.⁶⁴ Studies of people exposed in West Virginia also found that PFOA

exposure is probably linked to kidney cancer and testicular cancer.⁶⁵ Additional evidence has shown links between early life exposures to PFOA and altered mammary gland development.⁶⁶ Animal studies have found that PFOA and PFOS can cause damage to the liver and the immune system, birth defects, delayed development, and newborn deaths.⁶⁷ A series of in-depth investigative articles by journalist Sharon Lerner⁶⁸ discuss extensive evidence that the risks of certain of these chemicals have long been known and hidden by the manufacturers, with reportedly devastating effects on communities.

But it is not only the older, “long-chain” PFAS like PFOA and PFOS that are harmful. Many of the newer “short-chain” PFAS also are highly toxic at low doses, as EPA’s recent toxicity assessments and independent scientific reviews have shown.⁶⁹ With the knowledge that there are thousands of PFAS that will be impossible to regulate one-by-one, the 2014 Helsingør⁷⁰ and 2015 Madrid⁷¹ Statements, based upon extensive reviews of the scientific literature, provided consensus from more than 200 scientists on the potential for harm associated with the entire class of PFAS. Several recent scientific publications have proposed methods that can be used to regulate PFAS as a class.⁷² To better protect Americans from this public health threat, EPA and states should establish drinking water standards not only for PFOA and PFOS, which EPA recently determined must be regulated in drinking water, but should also use information on PFAS with greater amounts of data to generate a health-protective treatment technique and/or MCLs for PFASs as a class.⁷³

D. Microbial and Other Contaminants

Unfortunately, it’s not just about lead and PFAS. Our inadequate water infrastructure is posing very real health risks to millions of Americans from microbial pathogens. The Centers for Disease Control and Prevention (CDC) has noted that there are an estimated 7.1 million—and potentially as many as 12 million—Americans who are sickened by waterborne disease.⁷⁴ CDC further estimates that more than 600,000 of these (and possibly as many as 866,000) visit the hospital, and more than 6,600 (and possibly up to 8,870) die every year from waterborne disease caused by 17 pathogens. While some of this is attributable to recreational water use, CDC found “new waterborne disease challenges have

emerged” citing as examples aging infrastructure and chlorine-tolerant and biofilm-related pathogens in drinking water.⁷⁵

VI. Ineffective Water Treatment, Source Protection & Rules

Deferred maintenance and the steady deterioration of the nation’s water and wastewater treatment infrastructure have been a serious challenge for decades. Indeed, NRDC published a report nearly three decades ago calling for the modernization of our aging and outdated drinking water systems, noting that “Victorian water treatment” was “taking us into the 21st Century.” Unfortunately, here we are in the 21st Century, and progress since our 1994 report has been slow. Similarly, we have long known that our wastewater and storm water treatment and collection systems badly need updating.

The health risks stem from several problems:

- ***Often outdated and inadequate drinking water treatment & monitoring technology.*** Most large drinking water systems still use basic coagulation, sedimentation, sand filtration, and chlorination as treatment. This technology has reduced waterborne disease and served us well since before World War I a century ago, but is not up to the task of removing many of today’s contaminants like industrial chemicals such as PFAS, pesticides, nitrates and many other pollutants. The public health threat from our failure to invest in our water infrastructure is enormous. We remain at risk from lead, arsenic, bacteria and other pathogens, cancer-causing disinfection byproducts, the rocket fuel component perchlorate, PFAS and many other regulated and unregulated contaminants. We also continue to use outdated technologies for monitoring contaminants, instead of developing, certifying and widely using advanced testing technologies such as immune assay-based or other advanced technologies, or real-time chemical and pathogen monitoring. America needs to switch to 21st Century water treatment and monitoring infrastructure. Treatment technology such as deep bed granular activated carbon, membranes, and ultraviolet light or ozone for disinfection, still has been installed by only small minority of water systems. Moreover, while some water

systems are effectively using optimized corrosion control treatment, many others are not doing so, posing serious health risks.

- ***Inadequate Protection of Source Waters.*** The best and least expensive way to avoid drinking water contamination is to prevent pollution of the surface water or ground water used as a water source in the first place. Unfortunately, many water pollution sources still are poorly controlled, such as runoff from large industrial farms, mining waste, unregulated or poorly-controlled industrial pollution sources, and untreated or inadequately treated sewage. We anticipate that these problems could be made worse by efforts to weaken protections for waters of the U.S.
- ***Decaying, outdated and insufficient wastewater and storm water infrastructure.*** Our wastewater and storm water collection and treatment systems are too often not up to the task. Combined sewer overflows (CSOs) are common, when domestic sewage mixes with collected storm water in combined sewers and during precipitation events, causes raw or minimally treated sewage to flow into lakes and streams. CSOs are, according to EPA, “a major water pollution concern for the approximately 772 cities in the U.S. that have combined sewer systems.”⁷⁶ These CSOs and other shortcomings in our wastewater and storm water systems are often causing sewage contamination of drinking water source waters, not to mention beaches and sensitive ecosystems.
- ***Underserved, often low-income areas lacking access to safe piped drinking water.*** While most Americans take piped drinking water systems for granted, in some areas, particularly lower-income rural areas and Native American lands, lack access to safe and sufficient piped drinking water. Areas ranging from the *Colonias* in Texas near the border, to parts of the Central Valley of California, to rural Alaskan Native villages, to parts of Appalachia simply don’t have access to safe and sufficient tap water.
- ***Weak Lead and Copper Rule.*** In 1991, EPA established a complex treatment technique to control lead levels in tap water, known as the Lead and Copper Rule (LCR).⁷⁷ That rule was revised in 2021,⁷⁸ though many of the key problems with the original rule remain, and in some ways the revisions make matters worse.⁷⁹ Overall,

under the 2021 LCR Revisions, most of the 9 to 12 million lead service lines will not be required to be replaced, and tens of millions of Americans' health will remain at risk. After additional stakeholder input and review EPA issued a December 2021 Federal Register notice conceding that "there are significant opportunities to further improve upon [the 2021 LCR Revisions] to achieve increased protection of communities from lead exposure through drinking water."⁸⁰ Ten states and NRDC, as well as the NAACP and frontline community groups represented by Earthjustice, challenged the January 2021 LCR Revisions as unlawful and inadequate to protect public health.⁸¹ That case is pending.

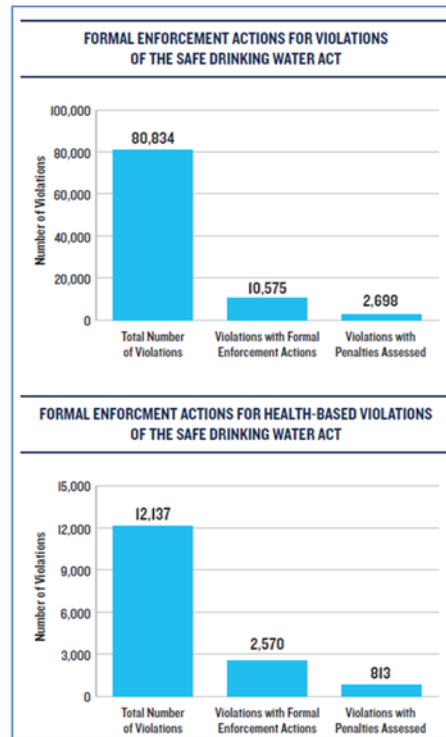
Under the 2021 LCR Revisions, smaller systems can avoid removing their lead service lines altogether by taking certain other steps (such as installing corrosion control, which may not work effectively). The 2021 LCR Revisions also provide that if a larger water system continually exceeds the action level, it is given more than 33 years to remove its lead service lines. The previous LCR required replacement within about 14 years, albeit with several loopholes, some of which the 2021 LCR Revisions tightened, and some of which remain. It is critical that the LCR be overhauled and strengthened to include a strict 5 ppb⁸² Maximum Contaminant Level for Lead at the tap; or, if EPA decides it cannot establish an MCL for lead, the agency should establish a strict treatment technique that includes, among other measures: (1) a mandate to *fully* replace all lead service lines at utility expense within 10 years; (2) a Lead Action Level of 5 ppb; (3) improved corrosion control requirements; (4) robust monitoring requirements that fully and fairly monitor problems, and prohibit gaming the system to avoid detecting or reporting lead contamination problems; and (5) a mandate for clear, honest, ongoing, and culturally appropriate public education and notification of lead issues.

- ***The Broken SDWA.*** While this is not the subject of this hearing, we urge the subcommittee to take up legislation to fix the SDWA, which as noted above has failed to ensure protection of the public against many contaminants, including lead and PFAS as well as other contaminants like perchlorate, Legionella and numerous other widespread contaminants.

VII. Weak Enforcement of the Safe Drinking Water Act

Violations of regulated contaminants standards rarely lead to enforcement actions either by EPA or the states. States with primacy under the SDWA (all states except Wyoming) are supposed to carefully oversee drinking water systems to ensure that they are in

Figure 4: Weak Drinking Water Enforcement



Source: NRDC, *Threats on Tap, 2017* (based on 2015 EPA data)⁸³

compliance with any EPA requirements such as the LCR. As part of this requirement, primacy states are to regularly report violations and certain other information to EPA.

Under the Act, if EPA finds that a water system is in violation in a state with primacy, EPA is to notify the water system and state of the violation. If the state fails to take enforcement action within 30 days, EPA is legally required to issue an administrative order or file an enforcement case in court against the violator.⁸⁴ EPA and states often ignore these important mandates in the law.

Flint is but one example where neither state authorities nor EPA took enforcement action until literally years after the problem began. But lack of enforcement in Flint was not anomalous. In fact, according to an NRDC's 2017 report⁸⁵ analyzing EPA's 2015 enforcement data, as shown in Figure 4, nearly 9 in 10 violations faced no formal federal or state enforcement. Also startlingly, more than three-fourths of violations were not returned to compliance by the end of the year, and only 3.3 percent of all violations faced any penalties from states or the federal government. Moreover, as noted earlier in this testimony, states fail to even report a large percentage of violations to EPA (for example, EPA data audits found 92 percent of LCR health standard violations are not reported to EPA), so such unreported violations are not reflected in these statistics. This lack of accountability sends a clear message to water suppliers that violate the EPA rules, with state and federal complicity: There is no cop on the beat.

VIII. Disproportionate Impacts of Infrastructure Inadequacies on Low-Income Communities and Communities of Color

As is well-known, the Flint community is predominantly African American (57%) and has a high percentage of residents living at or below the poverty line (over 40%), or who are working but struggling to make ends meet. State officials were "callous and dismissive" of the concerns these citizens raised about the water, according to the governor's independent Task Force on Flint.⁸⁶

The obfuscation by government officials, and the denigration of community members and experts who raised concerns, illustrates a pressing nationwide problem. Low-income communities and communities of color all over this country often bear the burden of environmental contamination and the resulting health problems.

In recent years a series of published studies have also documented that unsafe drinking water often is disproportionately associated with lower-income communities of color.⁸⁷ A major peer-reviewed 2020 study by Dr. Kristi Pullen Fedinick of NRDC and colleagues from Coming Clean and Environmental Justice Health Alliance carefully evaluated a massive amount of EPA compliance and enforcement data.⁸⁸ The authors found that race and low income were associated with violations, ineffective enforcement, and prolonged noncompliance with the Safe Drinking Water Act. Race and language spoken had the strongest relationship. Other studies have reached similar conclusions, for example with respect to nitrate and other contaminants in drinking water in California's San Joaquin Valley, contamination and substandard water infrastructure in U.S.–Mexico border *Colonias* and some minority communities in certain Southern rural areas, and bacteriological and chemical contamination on some Native American lands.⁸⁹ Balazs et al. have established that in areas of California “race/ethnicity and socioeconomic class were correlated with exposure to nitrate and arsenic contamination and noncompliance with federal standards in community water systems.”⁹⁰ EPA's environmental justice analysis for its Lead and Copper Rule found that “Higher blood lead levels [are] observed among minority populations,” and that a “[h]igher proportion of low-income children in older housing [are] likely to have lead service lines.”⁹¹

So the Flint case is not sui generis. There is a wide array of factors, including lack of access of lower-income communities of color to resources and government political attention, that help to create a disproportionate and “persistent drinking water burden” in these communities.⁹² In sum, researchers have found that “unequal access to infrastructure drives unequal access to safe drinking water.”⁹³

There are clear challenges to ensuring that every American gets safe drinking water. We don't want to create a two-tiered system where the wealthy get water that is clean and safe for their families, and the less well-to-do get second-class water that poses risks to their health.

IX. Water Infrastructure Investments and Water Affordability

We need to create an infrastructure investment and structuring system that ensures that communities that cannot afford to upgrade their water infrastructure get a helping hand. The National Drinking Water Advisory Council's Affordability Work Group report on how to address affordability concerns provides an important resource.⁹⁴ Among other ideas, the Work Group recommended the creation of a Low Income Water Assistance Program (LIWAP), modeled after the Low Income Heating and Energy Assistance Program (LIHEAP), which would help lower-income people afford their water bills if needed. Thus, rather than providing substandard water, all consumers should get top quality tap water, with some assistance to low-income people if necessary. Access to clean, safe, affordable drinking water should be available to everyone.

This committee's efforts to help ensure everyone including those most in need have access affordable drinking water has been strongly demonstrated by your vigorous efforts to fund water infrastructure investments targeted to disadvantaged communities, particularly in the BIL. It also was confirmed by the committee's efforts to ensure water utility customers do not lose access to essential services when they cannot afford to pay their water bills – both during the COVID-19 pandemic and beyond.⁹⁵ To equitably fund water infrastructure improvements needed to provide safe drinking water, we need robust federal water infrastructure funding, as well as federal water assistance program that helps low-income families with unaffordable water bills. But a key to solving the water affordability challenge is for water utilities to adopt equitable water rate structures including income-based and lifeline water rates. We urge the Committee to continue pressing to create a permanent water affordability program, and to ensure that it has a nationwide reach, as an important step toward more comprehensive water affordability solutions.⁹⁶

X. Protecting Water Sources Protects Health, Cuts Treatment Costs

We need a greater focus on source water protection. Unregulated or poorly-controlled sources that can pose substantial pollution threats to drinking water include agricultural runoff and factory farm pollution, groundwater and surface water pollution from oil and

gas exploration and development, coal and mineral mining, certain industrial sources, and spills and leaks from above-ground hazardous substance tanks. State authorities and EPA could substantially reduce the public health and environmental threats from such polluters and could reduce the costs of drinking water treatment by better controlling these pollution sources.

One example was the spill/leak of toxic chemicals from a huge above-ground tank at Freedom Industries that contaminated the drinking water of 300,000 people in Charleston, West Virginia in January, 2014.⁹⁷ EPA had been charged in the 1972 Clean Water Act with issuing rules to prevent spills and leaks from above-ground tanks storing hazardous substances, but has still not done so. Citizen organizations and NRDC entered into a consent decree with EPA to have the agency finally issue those long-overdue rules,⁹⁸ but EPA turned around and refused to issue such rules in 2019.⁹⁹ More recently the agency has agreed to develop rules to address worst case releases from hazardous substance facilities.¹⁰⁰ However, the list of hazardous substances required to be covered by such rules still has not been updated to include the chemicals that caused the Charleston disaster.

Many municipalities like Des Moines Iowa have been forced to quietly install treatment to remove or protect against potential contamination from other contaminants from upstream polluters, without recourse against the polluters. A far better approach would be for Congress, EPA and states (and citizens through broadened citizen suit authority to address source water polluters) to crack down on uncontrolled or poorly regulated pollution sources such as agricultural runoff and factory farms, mining, and oil and gas activities, to save ratepayers the expense of cleaning up after the polluters.

XI. Protecting Waters of the U.S. Helps Control Infrastructure Costs

As a result of confusing court decisions and a deeply problematic EPA rule issued during the previous administration that is now on hold, and a pending Supreme Court case, the protection of millions of miles of streams and tens of millions of acres of wetlands may lack protection under the Clean Water Act. As a result, water sources that feed drinking water

supplies for 117 million Americans could be vulnerable to pollution. So may be wetlands that filter contaminants and recharge groundwater supplies, while also providing important flood protection and wildlife habitat. If these waters are not protected against pollution by the Clean Water Act, downstream drinking water systems will have a very heavy burden of cleaning up the water to remove the contaminants, costs that—as in the case of Des Moines and so many other utilities—will be borne by ratepayers rather than the polluters. We urge EPA to proceed with issuing a strong rule ensuring protection of these waters of the United States.

XII. Challenges to Water Infrastructure from Extreme Weather

With increasing challenges from extreme precipitation events, droughts, groundwater depletion, and saltwater intrusion in many coastal areas, our water infrastructure faces new and often unprecedented risks. We see this in the impacts of the California and Midwestern droughts, the steady depletion of the Ogallala Aquifer, and the intrusion of saltwater into the wells used for drinking water in many coastal areas in Florida and California, for example.

It has become crucial for water utilities to plan for these challenges by integrating their water and wastewater planning through approaches such as using “integrated water resources management” or IWRM. Some have referred to this approach as “sustainable integrated water management.” IWRM is “a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.”¹⁰¹ Such integrated planning will become crucial as the impacts of climate change and other challenges become increasingly serious.

XIII. Major Recommendations

We envision a day when every person in this great nation—whether a resident of a major city, a small rural town, a Tribal community, or an underserved enclave in an impoverished isolated community—will drink safe and affordable tap water.

There is an emerging bipartisan consensus that we need to increase our investment in infrastructure. The enactment of the BIL is a significant and historic step forward, making over \$30 billion in investments in drinking water infrastructure. The \$10 billion approved by the House as part of the House-passed reconciliation bill is a welcome additional investment. But additional action is needed. NRDC has several recommendations for improving federal water infrastructure investments and controlling costs of such investments:

1. Implement the BIL by investing first in those communities that need it most.
2. Invest additional resources in fixing our water infrastructure, paying special attention to the affordability and needs of lower-income and disproportionately affected communities.
3. Fix lead in our water, including removing all lead service lines, fixing the Lead & Copper Rule, and addressing lead in schools and child care centers.
4. Fix the broken Safe Drinking Water Act to ensure controls on key contaminants like the class of PFAS.
5. Protect source water to reduce infrastructure costs and health and environmental harms.
6. Protect water infrastructure from extreme weather events and possible terror attacks.
7. Invest in technologies including broad-spectrum treatment and real-time and other advanced monitoring.
8. Let citizens act immediately to address imminent & substantial health endangerment.
9. Vigorously enforce the Safe Drinking Water Act.

NOTES

- ¹ General Accounting Office, "Drinking Water: Experts' Views on How Future Federal Funding Can Best Be Spent to Improve Security," GAO-04-29, 2003, available online at <http://www.gao.gov/new.items/d0429.pdf>.
- ² Pub. Law No. 117-38, 135 Stat. 429 (Nov. 15, 2021).
- ³ Radhika Fox, Assistant Administrator, Office of Water, USEPA, "Memorandum: Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law," March 8, 2022, available online at https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf.
- ⁴ Id., 135 Stat. at 1400-01.
- ⁵ See, for example, Rebecca Renner, "Reaction to the solution: lead exposure following partial service line replacement," *Environ Health Perspect.* 2010 May;118(5):A202-8. doi: 10.1289/ehp.118-a202. PMID: 20435548; PMCID: PMC2866705.; Justin St. Clair, Clement Cartier, Simoni Triantafyllidou, Brandi Clark, and Marc Edwards, "Long-Term Behavior of Simulated Partial Lead Service Line Replacements," *Environ. Engineering Sci.*, 2016, 33(1), DOI: 10.1089/ees.2015.0337; EPA Science Advisory Board, "SAB Evaluation of the Effectiveness of Partial Lead Service Line Replacements," Sept. 28, 2011, available online at https://www.epa.gov/sites/default/files/2015-09/documents/sab_evaluation_partial_lead_service_lines_epa-sab-11-015.pdf.
- ⁶ Baehler, Karen J., Marquise McGraw, Michele J. Aquino, Ryan Heslin, Lindsay McCormick, and Tom Neltner. 2022. "Full Lead Service Line Replacement: A Case Study of Equity in Environmental Remediation" *Sustainability* 14, no. 1: 352. <https://doi.org/10.3390/su14010352>
- ⁷ Alliance of Nurses for a Healthy Environment et al. "Principles for Lead Service Line Replacement." March 2022. Available online at <https://www.nrdc.org/sites/default/files/principles-for-lead-service-line-replacements-20220228.pdf>
- ⁸ Id., 135 Stat. at 1401-02.
- ⁹ Id., 135 Stat. at 1399-1400.
- ¹⁰ BW Research Partnership, Environmental Entrepreneurs (E2) and United Association of Union Plumbers and Pipefitters (UA), "Getting the Lead Out: Employment & Economic Impacts from Replacing America's Lead Pipes," August 2021, available online at https://e2.org/wp-content/uploads/2021/07/E2-UA-Economic-Impacts-from-Replacing-Americas-Lead-Service-Lines_August-2021.pdf.
- ¹¹ American Society of Civil Engineers, "The Economic Benefits of Investing in Water Infrastructure: How a Failure to Act Would Affect the US Economic Recovery." 2020, available online at http://uswateralliance.org/sites/uswateralliance.org/files/publications/The%20Economic%20Benefits%20of%20Investing%20in%20Water%20Infrastructure_final.pdf.
- ¹² American Society of Civil Engineers, "2001 Report Card for America's Infrastructure," <http://ascelibrary.org/doi/pdf/10.1061/9780784478882>.
- ¹³ American Society of Civil Engineers, "2021 Report Card for America's Infrastructure: Stormwater: D," available online at <https://infrastructurereportcard.org/cat-item/stormwater/> and "2021 Report Card for America's Infrastructure: Wastewater: D+," available online at <https://infrastructurereportcard.org/cat-item/wastewater/>.
- ¹⁴ American Society of Civil Engineers, "2021 Report Card for America's Infrastructure: Drinking Water: C-" available online at <https://infrastructurereportcard.org/cat-item/drinking-water/>.
- ¹⁵ American Society of Civil Engineers, *supra*, "2021 Report Card."
- ¹⁶ Center for Neighborhood Technology. "The Case for Fixing the Leaks Protecting people and saving water while supporting economic growth in the Great Lakes region," 2013, available online at http://www.cnt.org/sites/default/files/publications/CNT_CaseforFixingtheLeaks.pdf; see also, NPR, "As Infrastructure Crumbles, Trillions Of Gallons Of Water Lost," (Oct. 29, 2014), available online at <http://www.npr.org/2014/10/29/359875321/as-infrastructure-crumbles-trillions-of-gallons-of-water-lost>
- ¹⁷ See NRDC, "Cutting Our Losses," dedicated to tracking state policies requiring utilities to report leaks and losses of water from public water systems, at <http://www.nrdc.org/water/water-loss-reduction.asp>.

- ¹⁸ AWWA, Buried No Longer: Confronting America's Water Infrastructure Challenge, <http://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>
- ¹⁹ Congressional Research Service, "Funding for EPA Water Infrastructure: A Fact Sheet," (2015) <http://nationalaglawcenter.org/wp-content/uploads/assets/crs/R43871.pdf>
- ²⁰ American Society of Civil Engineers, The Economic Benefits of Investing in Water Infrastructure, *supra*.
- ²¹ See §7002(b) of the bipartisan Water Resources Development Act of 2016, S. 2848, 114th Cong., 2016.
- ²² *Ibid*.
- ²³ Emily Gordon, Jeremy Hays, Ethan Pollack, Daniel Sanchez, and Jason Walsh, "Water Works: Rebuilding Infrastructure, Creating Jobs, Greening the Environment," produced by Green for All, American Rivers, Economic Policy Institute, and Pacific Institute, 2011, at page 1, available online at http://pacinst.org/wp-content/uploads/sites/21/2013/02/water_works3.pdf.
- ²⁴ *Ibid* at 3.
- ²⁵ American Society of Civil Engineers, The Economic Benefits of Investing in Water Infrastructure: How a Failure to Act Would Affect the US Economic Recovery," 2020, available online at http://uswateralliance.org/sites/uswateralliance.org/files/publications/The%20Economic%20Benefits%20of%20Investing%20in%20Water%20Infrastructure_final.pdf.
- ²⁶ BW Research Partnership, Environmental Entrepreneurs (E2) and United Association of Union Plumbers and Pipefitters (UA), "Getting the Lead Out: Employment & Economic Impacts from Replacing America's Lead Pipes," August 2021, available online at https://e2.org/wp-content/uploads/2021/07/E2-UA-Economic-Impacts-from-Replacing-Americas-Lead-Service-Lines_August-2021.pdf.
- ²⁷ See NRDC, "The Flint Water Crisis," available online at <https://www.nrdc.org/stories/flint-water-crisis-everything-you-need-know>
- ²⁸ See NRDC, "Newark Water Crisis," available online at <https://www.nrdc.org/newark-drinking-water-crisis>.
- ²⁹ See NRDC, "EPA Orders Benton Harbor, Michigan to Protect Residents from Lead-Contaminated Drinking Water," available online at <https://www.nrdc.org/media/2021/211102-0>.
- ³⁰ See EPA, "EPA orders Clarksburg to identify homes, businesses with lead service lines," July 15, 2021, available online at [https://www.epa.gov/newsreleases/epa-orders-clarksburg-identify-homes-businesses-lead-service-lines#:~:text=PHILADELPHIA%20\(July%2015%2C%202021\),certified%20to%20remove%20lead%20to](https://www.epa.gov/newsreleases/epa-orders-clarksburg-identify-homes-businesses-lead-service-lines#:~:text=PHILADELPHIA%20(July%2015%2C%202021),certified%20to%20remove%20lead%20to,lines#:~:text=PHILADELPHIA%20(July%2015%2C%202021),certified%20to%20remove%20lead%20to).
- ³¹ See, for e.g., Valerie Baron, "Drinking Through a Lead Straw in the District," July 29, 2021, available online at <https://www.nrdc.org/experts/valerie-baron/drinking-through-lead-straw-district>; Valerie Baron, "Getting the Lead Out of DC Water," May 3, 2019, available online at <https://www.nrdc.org/experts/valerie-baron/getting-lead-out-dc-drinking-water>; Neil Augenstein, WTOP, "Before Flint: D.C.'s drinking water crisis was worse," April 4, 2016, available online at <https://wtop.com/dc/2016/04/flint-d-c-s-drinking-water-crisis-even-worse/>.
- ³² Cynthia Giles, "Comments on the agency's proposed revisions to its Lead and Copper Rule in the National Primary Drinking Water Regulations, 84 Fed. Reg. 61,684; Docket No. EPA-HQ-OW-2017-0300," Feb. 4, 2020, available online at <https://www.environmentalprotectionnetwork.org/wp-content/uploads/2020/02/Giles-LCR-comment-2-4-20.pdf> (emphasis in original; footnotes and paragraph break omitted).
- ³³ NRDC, "Lead Service Lines are Widespread and Used in Every State," 2021, available online at <https://www.nrdc.org/lead-pipes-widespread-used-every-state>
- ³⁴ EPA, "How Lead Gets into Drinking Water," available online at [https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#:~:text=In%20homes%20with%20lead%20pipes,and%20homes%20built%20before%201986](https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#:~:text=In%20homes%20with%20lead%20pipes,and%20homes%20built%20before%201986,water#:~:text=In%20homes%20with%20lead%20pipes,and%20homes%20built%20before%201986).
- ³⁵ Cornwell, David A.; Brown, Richard A.; Via, Steve H., "National Survey of Lead Service Line Occurrence," April 2016, Journal of the American Water Works Association, vol. 108, no. 4, pages E182-E191, available online at <http://dx.doi.org/10.5942/jawwa.2016.108.0086>.
- ³⁶ GAO, "Drinking Water: Approaches for Identifying Lead Service Lines Should Be Shared with All States," Sept. 2018, GAO-18-620, available online at <https://www.gao.gov/assets/gao-18-620.pdf>.
- ³⁷ The White House, "Fact Sheet: The American Jobs Plan," <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

- ³⁸ Joan Leary Matthews, NRDC, "Still High Levels of Lead in Drinking Water in NYC Schools." Aug. 20, 2019. Available online at <https://www.nrdc.org/experts/joan-leary-matthews/still-high-levels-lead-drinking-water-nyc-schools>
- ³⁹ Joan Leary Matthews, NRDC, "School Drinking Water Gets an F for Lead." Available online at <https://www.nrdc.org/experts/joan-leary-matthews/school-drinking-water-gets-f-lead>
- ⁴⁰ Joan Leary Matthews, NRDC, "Gov Hochul Signs Bill for Safer Drinking Water in Schools." Dec. 23, 2021. Available online at <https://www.nrdc.org/experts/joan-leary-matthews/gov-hochul-signs-bill-safer-drinking-water-schools>
- ⁴¹ American Academy of Pediatrics, Council on Environmental Health. "Prevention of Childhood Lead Toxicity." *Pediatrics*. 2016 Jul;138(1):e20161493. doi: 10.1542/peds.2016-1493. Epub 2016 Jun 20. Erratum in: *Pediatrics*. 2017 Aug;140(2): Erratum in: *Pediatrics*. 2020 Jun;145(6): PMID: 27325637.
- ⁴² See, e.g. Carter JA, Erhardt RJ, Jones BT, Donati GL. Survey of Lead in Drinking Water from Schools and Child Care Centers Operating as Public Water Suppliers in North Carolina, USA: Implications for Future Legislation. *Environ Sci Technol*. 2020 Nov 17;54(22):14152-14160. doi: 10.1021/acs.est.0c04316. Epub 2020 Nov 3. PMID: 33138370; Triantafyllidou, Simoni et al. "Variability and sampling of lead (Pb) in drinking water: Assessing potential human exposure depends on the sampling protocol." *Environment international* vol. 146 (2021): 106259. doi:10.1016/j.envint.2020.106259
- ⁴³ Joan Leary Matthews, NRDC, "Get the Lead Out of Drinking Water in Schools: Model Law." April 24, 2019, available online at <https://www.nrdc.org/experts/joan-leary-matthews/get-lead-out-drinking-water-schools>
- ⁴⁴ See, Joan Leary Matthews and Cyndi Roper, "Federal Push to Get the Lead Out of Water: Homes & Schools." Available online at <https://www.nrdc.org/experts/joan-leary-matthews/biden-administrations-push-get-lead-out-water>
- ⁴⁵ 3M employee Richard Purdy, quoted in Keith Matheny, "Internal documents show 3M hid PFAS dangers for decades," *Detroit Free Press*, May 9, 2019, available online at <https://www.freep.com/story/news/local/michigan/2019/05/09/3-m-lawsuit-pfas-water-contamination-michigan/3291156002/>
- ⁴⁶ ATSDR, Toxicological Profile for Perfluoroalkyls, Draft for Public Comment, June 2018, available online at <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf> (accessed September 3, 2018). (hereinafter "ATSDR, Toxicological Profile"). See also Anna Reade, Ph.D., Tracy Quinn, P.E., and Judith Schreiber, Ph.D., "Scientific and Policy Assessment for Addressing Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water," NRDC, March 15, 2019, available online at <https://www.nrdc.org/sites/default/files/assessment-for-addressing-pfas-chemicals-in-michigan-drinking-water.pdf>
- ⁴⁷ CDC, National Institute for Occupational Safety and Health, "Per- and Poly-Fluoroalkyl Substances (PFAS)," 2021, available online at <https://www.cdc.gov/niosh/topics/pfas/default.html>
- ⁴⁸ Chemical Watch, "US EPA announces PFAS action plan: Agency names TSCA a 'gatekeeper' for ensuring safety of new compounds, February 14, 2019, Available online at <https://chemicalwatch.com/74353/us-epa-announces-pfas-action-plan>
- ⁴⁹ Sharon Lerner, EPA Continues to Approve Toxic PFAS Chemicals Despite Widespread Contamination, *The Intercept*, October 25 2018, available online at <https://theintercept.com/2018/10/25/epa-pfoa-pfas-pfos-chemicals/>
- ⁵⁰ Barzen-Hanson K. A., et al. (2017) Discovery of 40 classes of per- and polyfluoroalkyl substances in historical aqueous film-forming foams (AFFFs) and AFFF-impacted groundwater. *Environ Sci Technol* 51:2047-2057, available online at <https://pubs.acs.org/doi/abs/10.1021/acs.est.6b05843> (accessed September 4, 2018).
- ⁵¹ Hu, Xindi C. et al. "Detection of Poly- and Perfluoroalkyl Substances (PFASs) in U.S. Drinking Water Linked to Industrial Sites, Military Fire Training Areas, and Wastewater Treatment Plants." *Environmental Science & Technology Letters* 3.10 (2016): 344-350. PMC. Web., available online at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062567/> (accessed 4 Sept. 2018); "Unsafe levels of toxic chemicals found in drinking water of 33 states," *The Harvard Gazette*, August 9, 2016, <https://news.harvard.edu/gazette/story/2016/08/unsafe-levels-of-toxic-chemicals-found-in-drinking-water-of-33-states/>

- ⁵² Sydney Evans, David Andrews, Ph.D., Tasha Stoiber, Ph.D., and Olga Naidenko, Ph.D., "PFAS Contamination of Drinking Water Far More Prevalent Than Previously Reported: New Detections of 'Forever Chemicals' in New York, D.C., Other Major Cities." Environmental Working Group, 2020, available online at <https://www.ewg.org/research/national-pfas-testing/>
- ⁵³ Environmental Working Group, "Up to 110 Million Americans Could Have PFAS-Contaminated Drinking Water." 2018, available online at <https://www.ewg.org/research/report-110-million-americans-could-have-pfas-contaminated-drinking-water>.
- ⁵⁴ EWG & Northeastern University Social Science Environmental Health Research Institute, PFAS Contamination Interactive Map, May, 2019, available online at <https://www.ewg.org/interactive-maps/2019-pfas-contamination/map/>.
- ⁵⁵ Michigan PFAS Action Response Team, "Taking Action to Protect the Public's Water," 2019, available online at <https://www.michigan.gov/pfasresponse/>.
- ⁵⁶ See Michigan Department of Environment, Great Lakes and Environment, "Michigan PFAS Action and Response Team's PFAS Geographic Information System." Available online at <https://egle.maps.arcgis.com/apps/webappviewer/index.html?id=bdec7880220d4ccf943aea13eba102db>; see also, Keith Matheny, "Is your water safe? Harmful chemical found in many Michigan systems," Detroit Free Press, August 22, 2018, available online at <https://www.freep.com/story/news/local/michigan/2018/08/22/harmful-chemical-pfas-pfos-pfoa-hundreds-public-water-systems/1067165002/> (accessed September 3, 2018).
- ⁵⁷ See Northeastern University, Social Science Environmental Health Research Institute (SSEHRI), "SSEHRI PFAS Contamination Site Tracker (last updated July 26, 2018), available online at <https://docs.google.com/spreadsheets/d/1HxLAzOmFdMh7V-mey4ExTPsnNKarEcGG6klRWZH8auA/edit#gid=676990244> (accessed September 3, 2018).
- ⁵⁸ Brendan J. Lyons. "Survey: Higher rates of cancer, illnesses followed PFOA exposure Health survey raises questions about earlier health department estimates." Albany Times-Union, August 21, 2018, <https://pfasproject.com/2018/08/28/survey-higher-rates-of-cancer-illnesses-followed-pfoa-exposure-in-hoosick-falls/>
- ⁵⁹ Arathy Nair, "DuPont Settles Lawsuits Over Leak of Chemical Used to Make Teflon," Feb. 13, 2017, available online at <https://www.reuters.com/article/us-du-pont-lawsuit-west-virginia/duPont-settles-lawsuits-over-leak-of-chemical-used-to-make-teflon-idUSKBN15S18U> (accessed September 4, 2018).
- ⁶⁰ Cheryl Hogue, "What's GenX still doing in the water downstream of a Chemours plant?" Chemical & Engineering News, Feb. 12, 2018, available online at <https://cen.acs.org/articles/96/i7/whats-genx-still-doing-in-the-water-downstream-of-a-chemours-plant.html> (accessed September 4, 2018).
- ⁶¹ ATSDR, Toxicological Profile, supra; Zota, Ami R., Cassandra A. Phillips, and Susanna D. Mitro. "Recent Fast Food Consumption and Bisphenol A and Phthalates Exposures among the U.S. Population in NHANES, 2003–2010." Environmental Health Perspectives 124.10 (2016): 1521–1528. PMC. Web, available online at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047792/> (accessed September 4, 2018).
- ⁶² C8 Science Panel, "C8 Probable Link Reports," available online at http://www.c8sciencepanel.org/prob_link.html (accessed September 3, 2018)(hereinafter "C8 Science Panel").
- ⁶³ See ATSDR, Toxicological Profile, supra.
- ⁶⁴ ATSDR, Toxicological Profile, supra.
- ⁶⁵ See C8 Science Panel, cited supra.
- ⁶⁶ Rudel, Ruthann A. et al. "Environmental Exposures and Mammary Gland Development: State of the Science, Public Health Implications, and Research Recommendations." Environmental Health Perspectives 119.8 (2011): 1053–1061. PMC. Web, available online at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3237346/> (accessed September 4, 2018).
- ⁶⁷ ATSDR, Toxicological Profile, supra.
- ⁶⁸ Sharon Lerner, The Teflon Toxin, The Intercept, series available online at <https://theintercept.com/series/the-teflon-toxin/> (accessed September 4, 2018).

- ⁶⁹ See, for example, EPA, Human Health Toxicity Assessment for GenX Chemicals, 2021, available online at <https://www.epa.gov/chemical-research/human-health-toxicity-assessments-genx-chemicals>; ATSDR, Toxicity Profile for Perfluoroalkyls, 2021, available online at <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>; See also PFAS Central Data Hub, available online at <https://pfascentral.org/data-hub> (linking to extensive data on toxicity of many PFAS).
- ⁷⁰ Martin Scheringer, Xenia Trier, Ian T. Cousins, Pim de Voogt, Tony Fletcher, Zhanyun Wang, Thomas Webster, "Helsingør Statement on poly- and perfluorinated alkyl substances (PFASs)," *Chemosphere*, Volume 114, November 2014, Pages 337-339, available online at <https://www.sciencedirect.com/science/article/pii/S004565351400678X> (accessed September 4, 2018).
- ⁷¹ Blum, Arlene et al. "The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)." *Environmental Health Perspectives* 123.5 (2015): A107-A111. PMC. Web, available online at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4421777/> (accessed September 4, 2018).
- ⁷² See, Cousins IT, DeWitt JC, Glüge J, Goldenman G, Herzke D, Lohmann R, Miller M, Ng CA, Scheringer M, Vierke L, Wang Z. "Strategies for grouping per- and polyfluoroalkyl substances (PFAS) to protect human and environmental health." *Environ Sci Process Impacts*. 2020 Jul 1;22(7):1444-1460. doi: 10.1039/d0em00147c. Epub 2020 Jun 4. PMID: 32495786; PMCID: PMC7585739; Kwiatkowski CF, Andrews DQ, Birnbaum LS, Bruton TA, DeWitt JC, Knappe DRU, Maffini MV, Miller MF, Pelch KE, Reade A, Soehl A, Trier X, Venier M, Wagner CC, Wang Z, Blum A. "Scientific Basis for Managing PFAS as a Chemical Class." *Environ Sci Technol Lett*. 2020 Aug 11;7(8):532-543. doi: 10.1021/acs.estlett.0c00255. Epub 2020 Jun 30. PMID: 34307722; PMCID: PMC8297807. See also Bălan SA, Mathrani VC, Guo DF, Algazi AM. "Regulating PFAS as a Chemical Class under the California Safer Consumer Products Program." *Environ Health Perspect*. 2021 Feb;129(2):25001. doi: 10.1289/EHP7431. Epub 2021 Feb 17. PMID: 33595352; PMCID: PMC7888260.
- ⁷³ See *id.*; see also, Anna Reade, Ph.D., Tracy Quinn, P.E., and Judith Schreiber, Ph.D., "Scientific and Policy Assessment for Addressing Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water," NRDC, March 15, 2019, available online at <https://www.nrdc.org/sites/default/files/assessment-for-addressing-pfas-chemicals-in-michigan-drinking-water.pdf>; Anna Reade, NRDC, Comments on ATSDR Toxicological Profile on Perfluoroalkyls (2018 Draft), available online at <https://www.nrdc.org/sites/default/files/comments-on-atsdr-toxicological-profile-on-perfluoroalkyls-2018-draft-2018-08-21.pdf> (accessed September 4, 2018).
- ⁷⁴ Collier SA, Deng L, Adam EA, et al. Estimate of Burden and Direct Healthcare Cost of Infectious Waterborne Disease in the United States. *Emerging Infectious Diseases*. 2021;27(1):140-149. doi:10.3201/eid2701.190676, available online at https://wwwnc.cdc.gov/eid/article/27/1/19-0676_article.
- ⁷⁵ *Id.*
- ⁷⁶ EPA Region 1, "What are Combined Sewer Overflows (CSOs)?" available online at <https://www3.epa.gov/region1/eco/uep/cso.html#:~:text=These%20overflows%2C%20called%20combined%20sewer,that%20have%20combined%20sewer%20systems>.
- ⁷⁷ EPA Lead and Copper Rule, *supra* note 2.
- ⁷⁸ EPA, National Primary Drinking Water Regulation: Lead and Copper Rule Revisions," 86 Fed. Reg. 4198 (January 15, 2021), available online at <https://www.federalregister.gov/documents/2021/01/15/2020-28691/national-primary-drinking-water-regulations-lead-and-copper-rule-revisions>.
- ⁷⁹ NRDC, EPA's New Drinking Water Rule Leaves Millions of Toxic Lead Pipes in the Ground to Contaminate a Generation of Children, 2021, <https://www.nrdc.org/media/2020/200927>.
- ⁸⁰ EPA, Review of the National Primary Drinking Water Regulation: Lead and Copper Rule Revisions (LCRR), 86 Fed. Reg. 71574, 71577 (December 17, 2021). Available online at <https://www.govinfo.gov/content/pkg/FR-2021-12-17/pdf/2021-27457.pdf>.
- ⁸¹ *Newburg Clean Water Project et al. v. EPA*, Case No. 21-1019 and consolidated cases (D.C. Cir. filed January 15, 2021).
- ⁸² The 5 ppb standard has been established by FDA for bottled water in the U.S., and Canada has established a 5 ppb standard for lead in drinking water, see <https://www.canada.ca/en/health-canada/news/2019/03/health-canada-sets-new-guideline-for-lead-in-drinking-water-latest-in-series-of-government-actions-to-protect-canadians-from-exposure-to-lead.html>. The European Commission also has ordered that its current 10 ppb lead in drinking water standard be phased down to 5 ppb in coming years. DIRECTIVE (EU) 2020/2184 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 16 December 2020,

on the quality of water intended for human consumption, available online at <https://eur-lex.europa.eu/eli/dir/2020/2184/oj>.

⁸³ Kristi Pullen Fedinick et al., “Threats on Tap: Widespread Violations Highlight Need for Investment in Water Infrastructure and Protections,” 2017, NRDC. Available online at <https://www.nrdc.org/sites/default/files/threats-on-tap-water-infrastructure-protections-report.pdf>.

⁸⁴ Safe Drinking Water Act section 1414(a).

⁸⁵ Kristi Pullen Fedinick et al., “Threats on Tap: Widespread Violations Highlight Need for Investment in Water Infrastructure and Protections,” 2017, NRDC. Available online at <https://www.nrdc.org/sites/default/files/threats-on-tap-water-infrastructure-protections-report.pdf>.

⁸⁶ Flint Water Advisory Task Force, “Final Report,” March 2016, p. 2, available online at http://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf.

⁸⁷ See, e.g., Switzer D and Teodoro M, The Color of Drinking Water: Class, Race, Ethnicity, and Safe Drinking Water Act Compliance, Sept. 2017, Journal AWWA, 109:9; available online at <https://mannyteodoro.com/wp-content/uploads/2014/03/SwitzerTeodoro-JAWWA-2017-Color-of-Drinking-Water.pdf>; Balazs C, and Ray I, The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure, Am J Public Health. 2014 April; 104(4): 603–611 (available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025716/>).

⁸⁸ Dr. Kristi Pullen Fedinick, Steve Taylor, and Michele Roberts, Watered Down Justice, 2020, available online at <https://www.nrdc.org/sites/default/files/watered-down-justice-report.pdf>.

⁸⁹ Ibid; see also VanDerslice J, Drinking Water Infrastructure and Environmental Disparities: Evidence and Methodological Considerations, Am J Public Health. 2011 December; 101(Suppl 1): S109–S114, available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC322486/>; Balazs C, Morello-Frosch R, Hubbard A, Ray I. Social disparities in nitrate contaminated drinking water in the San Joaquin Valley. Environ Health Perspect. 2011;119(9):1272–1278 (available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230390/>); Balazs CL, Morello-Frosch R, Hubbard A, Ray I. Environmental justice implications of arsenic contamination in California’s San Joaquin Valley: a cross-sectional, cluster design examining exposure and compliance in community drinking water systems. Environ Health. 2012;11:84, available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533865/>.

⁹⁰ Balazs, *supra*.

⁹¹ EPA Background Documents for Lead and Copper Rule, Abt Associates, Environmental Justice Analysis for the Proposed Lead and Copper Rule Revisions. Oct 22, 2019, available online at <https://www.regulations.gov/document/EPA-HQ-OW-2017-0300-0008>.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ National Drinking Water Advisory Council, Affordability Work Group, RECOMMENDATIONS OF THE NATIONAL DRINKING WATER ADVISORY COUNCIL TO U.S. EPA ON ITS NATIONAL SMALL SYSTEMS AFFORDABILITY CRITERIA, July 2003, available online at https://www.nclc.org/images/pdf/energy_utility_telecom/water/recommendations_july2003.pdf.

⁹⁵ Thanks to this Committee’s leadership, in the 2021 Consolidated Appropriations Act and American Rescue Plan Act, Congress provided \$1.1 billion to create an emergency Low Income Home Water Assistance Program at the Department of Health and Human Services—the first-ever federal funding for low-income water assistance. (See <https://www.acf.hhs.gov/ocs/programs/lihwap>.) Subsequently, in the BIL (sec. 50109), Congress authorized, but did not fund, a modest pilot program at EPA to help local utilities provide water and wastewater bill assistance beyond the pandemic. The version of the BIL initially passed by the House (on July 1, 2021) included a provision, reported by this Committee, to authorize \$8 billion for a more robust grant program at EPA to support local water assistance programs (sec. 13302-13303). It also included \$150 million for a robust data collection effort to support a nationwide needs assessment (sec. 13304). The House’s reconciliation bill, HR 5376, (sec. 30302) includes \$225 million for EPA for water assistance.

⁹⁶ A proposed amendment to the BIL, submitted to the House Rules Committee, offers a template for a permanent low-income water assistance program with nationwide scope. See https://amendments.rules.house.gov/amendments/TLAIB_035_LJIDWAP210628110017323.pdf.

⁹⁷ See e.g. Testimony of Erik D. Olson, NRDC, Before the Subcommittee on Water and Wildlife of the U.S. Senate Committee on Environment and Public Works, at the hearing entitled Examination of the Safety and Security of Drinking Water Supplies Following the Central West Virginia Drinking Water Crisis, February 4, 2014, available online at <http://www.epw.senate.gov/public/index.cfm/hearings?ID=8CCDAFF7-CDC6-8A6F-CA6E-A7017498083C>.

⁹⁸ NRDC et al., “After More Than 40 Years, EPA Will Act on Hazardous Industrial Spills,” available online at <https://www.nrdc.org/media/2016/160217-0>

⁹⁹ NRDC, “Trump’s EPA Ignores Threat of Hazardous Spills.” August 22, 2019, available online at <https://www.nrdc.org/media/2019/190822-2>

¹⁰⁰ NRDC, “Court Approves Settlement Requiring EPA Rules on Most Dangerous Chemical Spills.” March 13, 2020, available online at <https://www.nrdc.org/media/2020/200313>.

¹⁰¹ UN International Decade for Action Water for Life 2005-2015, INTEGRATED WATER RESOURCES MANAGEMENT (IWRM), available online at <http://www.un.org/waterforlifedecade/iwrm.shtml>.

Mr. TONKO. Thank you, Mr. Olson.

And we now recognize Ms. Mathieu.

Ms. Mathieu, you are recognized for 5 minutes please, and the mike is yours.

STATEMENT OF LORI J. MATHIEU

Ms. MATHIEU. Good morning, Subcommittee Chairman Tonko, Ranking Member McKinley, members of the subcommittee.

My name is Lori Mathieu, and I am the President of the Association of State Drinking Water Administrators, known as ASDWA. We have 57 members, and we include all 50 States and five territorial programs, a Navajo Nation, and the District of Columbia.

Thank you for this incredible opportunity to appear before you and the subcommittee to discuss effective and efficient implementation of the bipartisan infrastructure law for safe drinking water.

A collaborative partnership is always and has always been needed since the beginning of time with the Safe Drinking Water Act between all of us, States, tribes, territories, and the Federal Government.

First of all, first and foremost, we collectively and sincerely wish to say thank you for this funding. This is a substantial increase in funding under the bill, and an investment in safe drinking water and public health.

ASDWA members have compliance oversight and enforcement authority or primacy of the State Drinking Water Act. Our members and their staff are the scientists and the engineers on the front lines every day implementing the Act and executing the laws that you pass.

We provide technical assistance and oversight of drinking water systems. That is our job every single day.

I am also, as you mentioned, the Public Health Branch Chief of the Environmental Health and Drinking Water Branch of the Connecticut Department of Public Health. I have been a public health official for over 34 years.

I have received statewide programs and addressed primacy and the Safe Drinking Water Act and regulation of drinking water systems, also the SRF Program. We also have a PFAS and Emerging Contaminants Program, Certified Operator Program. We started a new Climate Change and Public Health Program.

We also oversee a number of lead programs that work to prevent lead exposure.

Today I will discuss ASDWA's perspective on implementation of the bill. My testimony has three basic themes.

We want to focus on getting the lead out everywhere. ASDWA support the removal of all lead service lines across the country from the water main to where the lead service line goes to the building wall.

The development of the inventories is only the first step. Then we need to move toward removal. ASDWA requests that Congress consider providing for additional subsidization up to possibly 100 percent loan forgiveness for lead service line replacements.

In Connecticut, Governor Lemont has proposed Bill 5045, which focuses on childhood lead poisoning, and we are working to merge all efforts to reduce lead exposure.

Flexibility and ease in bill implementation are critical to achieving the goal of equity and helping systems and communities that need the funding the most.

As stated in EPA's recent implementation bill memo from Radhika Fox, States are responsible for defining disadvantaged communities, taking into account local conditions.

In Connecticut and in many States, we are currently working with our leadership to right now enhance our focus on communities that need the funding the most, with a focus on health equity.

Streamline the SRF Programs, the application process. States and EPA need to work together to make applying for the bill funds and the SRF Programs as simple and as easy as possible, while ensuring the requirements are addressed.

Let's work together to develop waivers. ASDWA recommends the development of waivers in limited circumstances for the requirements of Buy America, Build America, and the Davis-Bacon Acts. Make funds simpler to obtain for those most in need.

Sustainability, durability, and longevity. Public water systems that receive bill funding need to be durable, resilient, and have longevity. While the bill funding is substantial, we need the public water systems that use these funds to be able to appropriately operate and maintain their infrastructure. Being resilient into the future is important.

There are over 124,000 small community public water systems in this country. Many lack long-term durability and to meet the challenges, the many challenges of the Safe Drinking Water Act.

In Connecticut, we have 400 of those small systems in rural settings, many in disadvantaged communities. The DWSRF Programs, States, and EPA need to work together to ensure that the SRF loans are sustainable and have longevity with the split of loan versus principal forgiveness.

The bill funding is only the first step to address the needs of our drinking water infrastructure.

Workforce. The workforce needs a sustainable workforce through these bill funds and beyond, with a particular focus on engineers. It is incredibly hard to find engineers to take our jobs these days.

Cybersecurity. We must never forget this issue, and we must recognize and address it, and it is a growing threat, and we want to work closely with EPA and our colleagues at the Department of Homeland Security.

As we participate today in this hearing, ASDWA members are hard working on the implementation right now, and we are moving forward. In Connecticut right now, we have an open call for projects. This unprecedented funding will improve the country's infrastructure and public health, and we look forward to keeping Congress informed of our progress.

And, again, thank you so much for this investment in safe drinking water and public health. It is greatly appreciated by our membership across the country and certainly within the State of Connecticut Department of Public Health, who I represent.

Thank you very much.

[The prepared statement of Ms. Mathieu follows:]

Testimony of Lori J. Mathieu

President, Association of State Drinking Water Administrators (ASDWA) and

Public Health Branch Chief, Environmental Health & Drinking Water Branch

Connecticut Department of Public Health

to the

Subcommittee on Environment and Climate Change

House Committee on Energy and Commerce

Trusting the Tap: Upgrading America's Drinking Water Infrastructure

Tuesday, March 29, 2022



Executive Summary

ASDWA's state, territorial, and tribal members (hereinafter "states"), have been implementing the Safe Drinking Water Act (SDWA) and subsequent SDWA Amendments since the initial SDWA in 1974. Our members are co-regulators with the Environmental Protection Agency (EPA) and have considerable experience working through its many complexities, including the implementation of the Drinking Water State Revolving Loan Fund (DWSRF). ASDWA is thankful for the increased safe drinking water focused DWSRF funding from the Bipartisan Infrastructure Law (BIL). This funding represents a once-in-a-generation opportunity for an incredible amount of drinking water infrastructure improvements and protection of public health.

This testimony has three themes:

1. *Focusing on getting the lead out, everywhere* - ASDWA supports the replacement of all the lead service lines across the country from the water main to where the service line goes through the building wall. The development of inventories is the logical first step in getting the lead out and the BIL funding will provide the jump start needed for systems to begin the process of cataloguing the material of each drinking water service line. Replacement is the next step once lead service lines have been identified in the inventories. ASDWA requests that Congress considers providing flexibility for the additional subsidization for 100% loan forgiveness for lead service lines replacements. States collectively believe this provision will assist to address identification and replacement of lead service lines.
2. *Flexibility* – Flexibility in BIL implementation is critical to achieving the goal of helping systems and communities that need the funding the most. As stated in EPA's BIL memo, states are responsible for defining a disadvantaged community, taking local conditions into account. States and EPA need to work together to make applying for BIL funds a

streamlined, efficient, and simple process for all eligible public water systems. To foster a streamlined process, ASDWA recommends the development of waivers, in limited circumstances, for the requirements of the Buy America, Build America (BABA), and Davis-Bacon (DB) Acts to make these funds simpler to obtain for those most in need. We believe in the principles of BABA and DB; however, these requirements make the DWSRF process insurmountable for some systems that need the funding the most.

3. *Sustainability* – The sustainability opportunity that you have provided through the BIL is important to sustaining our nation’s safe drinking water and the state programs that support, implement, and enforce the SDWA. Below are sustainability needs:
 - a. Public Water System Sustainability - While the BIL funding is substantial, we do need to assure that public water systems are sustainable and can appropriately operate and maintain their infrastructure to provide safe drinking water.
 - b. Fund Sustainability - States and EPA need to work together to ensure that the State Revolving Loan Funds (SRFs) are sustainable with the split of loans versus principal forgiveness, i.e., enough funds are paid back so that funds can be loaned out again and revolve as intended.
 - c. Workforce and Safe Drinking Water Program Sustainability - The water sector needs a sustainable workforce throughout the BIL funding and beyond. Adequate staff is needed at state agencies and public water systems to finance, design, build and provide appropriate oversight for BIL infrastructure construction, including consulting engineers, certified water operators, technical service providers, and construction suppliers and contractors. Sustaining water infrastructure funding beyond BIL is critical, as the BIL funding is only the first step in addressing the current and future needs of our drinking water infrastructure.

- d. Technology Sustainability - To ensure security and sustainability for the long term, we must recognize and address the growing cybersecurity threat facing our water systems and states.

Testimony

Good morning Subcommittee Chairman Tonko, Ranking Member McKinley, and Members of the Subcommittee. Thank you for this opportunity to appear before the Subcommittee and discuss how we can best address the protection of public health through the collaborative partnership among the states, tribes, territories, and the federal government in implementing the BIL funding and the Safe Drinking Water Act (SDWA). First and foremost, state drinking water programs wish to thank you for the BIL funding focused to address public drinking water. The BIL funds provide a unique opportunity for meaningful investment in the U.S. drinking water infrastructure.

My name is Lori Mathieu, and I am the President of the Association of State Drinking Water Administrators (ASDWA), whose 57 members include the 50 state drinking water programs, five territorial programs, the District of Columbia, and the Navajo Nation. Our members have primary enforcement authority, or primacy, for the SDWA. Our members and their staff are the scientists and engineers on the front lines every day, implementing the SDWA by providing compliance assistance, technical assistance, support, enforcement, and oversight of drinking water systems, which is critical to ensuring safe drinking water and protecting public health. Our members assure the implementation of the laws under the SDWA. I am also the Public Health Branch Chief at the Environmental Health & Drinking Water Branch of the Connecticut Department of Public Health where I oversee under the direction of CT DPH Commissioner Manisha Juthani, Deputy Commissioner Heather Aaron a host of programs with over 100 staff within public drinking water regulation and environmental health protection including: primacy

program for public drinking water regulation, DWSRF program, Source Water Protection and Planning, PFAS/Emerging Contaminants Program, Office of Public Health & Climate, Food Protection, Environmental Assessment and Toxicology, Childhood Lead Poisoning Prevention Program, Occupational Health, Environmental Health Tracking, Beach Recreational waters, On-site septic waste and public pools environmental engineering program, Environmental Lab Certification, Environmental Health Certification, Drinking Water Operator Certification, Private well program, and Asbestos and Radon Program.

Today, I will discuss ASDWA's perspective on the implementation of the Bipartisan Infrastructure Law (BIL, P.L. 117-58), and the significant increase in drinking water infrastructure funding. My testimony has three themes:

- Focusing on getting the lead out, everywhere;
- Flexibility in BIL implementation; and
- Sustainability.

Background

The state primacy agencies are co-regulators with EPA in implementing the SDWA. EPA and states have always had a close working relationship. This cooperation is critical now more than ever and ASDWA's members will make the most of this once-in-a-generation opportunity presented to us.

ASDWA's members manage state-level drinking water programs to protect public health through safe drinking water. Our sanitary survey inspectors provide direct oversight and inspections of each and every public drinking water system in the country. Most of these inspectors are sanitary engineers and we rely on experienced skilled engineers to conduct

survey work in the field. Public water systems (PWSs) vary in size and complexity, ranging from restaurants and campgrounds to manufactured housing communities and expansive multi-jurisdictional municipal systems such as the City of New York, the Greater Boston area, Los Angeles, and every large city in between. Of the over 150,000 total regulated PWSs, there are 549 large systems serving over 100,000 people, and over 124,000 small systems serving under 500 people. Our engineers ensure the appropriate application of treatment for the removal of drinking water contaminants and these engineers review construction plans and specifications and provide invaluable technical assistance to water systems of all sizes. Engineers and environmental analysts also develop the Intended Use Plans (IUPs) and Project Priority Lists (PPLs), which are used to guide and manage the DWSRF Program. Our compliance and enforcement officers ensure drinking water systems comply with National Primary Drinking Water Regulations (NPDWRs) designed to protect public health, and our grants officers ensure the DWSRF funding is disseminated to communities in need and provide fiduciary oversight. ASDWA's members manage drinking water operator certification programs to ensure that system operators have the skills and knowledge to appropriately operate treatment plants and distribution systems. ASDWA's members also certify drinking water laboratories to ensure that compliance monitoring data is accurate. State staff ensure SDWA compliance to protect public health.

Moreover, state activities go well beyond ensuring compliance at the tap and these activities must be efficient given continued resource constraints. These activities have increased in depth and scope during the COVID-19 pandemic to include assisting with the development of continuity of operations plans for water systems, coordination with state-level Water and Wastewater Response Networks (WARNs) on operator coverage, emergency operation, and equipment and chemical supply issues due to the pandemic; developing COVID-19 drinking

water risk communication for the public and modifying "routine" drinking water public notices to clarify the connection or lack of connection to the coronavirus; developing new forms and processes for tracking closed facilities and revising reopening system and building procedures; and developing and implementing remote work and oversight tools. ASDWA's members have a central role in protecting public health by ensuring that Americans have access to our most precious resource--safe drinking water.

At the state level, drinking water programs are funded through four sources:

- Public Water Supply Supervision (PWSS) grants from EPA;
- DWSRF set-asides;
- Fees from water systems for plan reviews, inspections, etc.; and
- General state funds.

State-provided funding has historically compensated for inadequate federal funding, but state budgets have been less able to bridge this funding gap in recent years, especially during the ongoing COVID-19 pandemic. Insufficient funding support for drinking water programs increase the likelihood of scenarios that put the public's health at risk. The number of regulations requiring state implementation and oversight as well as performance expectations continue to grow while the federal funding increases have not kept pace. Inflation has further eroded the static funding levels. Not all state drinking water programs have the funding flexibility to be able to use all four of the funding sources named above.

The funding gap for state drinking water programs is significant. ASDWA's 2020 Resource Needs Report¹ estimated the funding gap for the PWSS program in 2020 to be \$375 million, increasing to \$469 million by 2029. The funding gap has increased by \$197 million since the previous analysis in 2011 due to increasing demands on state programs to address new SDWA Rules, unregulated contaminants such as per- and polyfluoroalkyl substances (PFAS) and harmful algal blooms, lead in school drinking water, *Legionella*, and to respond to the COVID-19 pandemic. The federal share of program funding has decreased by 8% since the previous analysis in 2011. Without closing this gap, we increase the risk to our public drinking water and our work to protect public health. Increased PWSS funds provide for implementation of existing drinking water rules, compliance assurance, and enforcement of drinking water quality requirements. It is a small price to pay for public health protection. Not all state drinking water programs have the benefit to use all the DWSRF set-asides to assist with the funding gap.

It should also be noted that because the Congressionally Directed Spending (earmarks) are being taken out of the DWSRF appropriations, the set-aside amounts will be reduced by about 35% compared to the 2021 appropriation – even though the appropriation amounts were the same between 2021 and 2022. ASDWA recognizes the need for some Congressionally Directed Spending, and the potential financial impacts to the drinking water programs needs to be recognized in future discussions on earmarks.

ASDWA recognizes and is thankful for the water infrastructure funding that Congress provided for the DWSRF program through the BIL. This unprecedented amount of funding will support vital drinking water infrastructure and will support continued public health protection. The

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

funding will provide an opportunity for states to work with our regulated drinking water systems to address long-standing problems like decaying/aging infrastructure and promoting the replacement of lead service lines. The funding will also help us to address new problems with emerging contaminants, such as PFAS.

ASDWA is thankful for the emphasis Congress placed to ensure that funding from the BIL will go to those communities that need it the most. By prioritizing infrastructure projects for disadvantaged communities, states will have the opportunity to ensure health equity and to address long-standing issues facing these communities in ways that promote long-term sustainability of the drinking water system.

Challenges facing the water industry remain significant and impact the lives of Americans every day. Proactive replacement of drinking water lead service lines will continue to be an important effort to get the lead out, along with a robust SDWA rule-making effort to re-evaluate and improve the regulations for lead in drinking water.

We need to collectively focus on getting the lead out, everywhere.

ASWDA supports removing all the lead service lines across the country from the water main to where the service line goes through the building wall. While lead service lines pose the greatest risk of exposure to lead from drinking water, numerous other potential pathways of exposure are also important. In addition to lead service lines, Americans can be exposed to lead from lead plumbing connectors, commonly referred to as goosenecks or pigtails, as well as lead solder, lead plumbing, and lead paint within the home. Connecticut's Governor Lamont has proposed Bill 5045 focused on protecting our state's children from harmful lead exposure. Continued prioritization of lead removal from all sources will be important moving forward. Water systems

will need to focus on getting the lead out of their distribution by removing lead pigtails and goosenecks, in addition to removing the lead service lines serving their consumers. Further education is also needed for the public so that consumers can take necessary action to protect themselves from all potential lead sources within their homes.

The development of lead service line inventories is the logical and necessary first step in getting the lead out of America's drinking water systems—you must know where the lead is to remove it. Identifying the locations of these lines will be extremely challenging. Detailed records on both the public and private sides of services lines are lacking nationwide and uncovering the lines to identify them can be expensive and time-consuming. However, the state drinking water programs and the drinking water industry is up for this challenge. EPA, states, and water systems are working together to employ any and all innovative solutions to overcome the barriers surrounding lead service line identification and replacement. We cannot do this alone as state programs, this is a team approach from all agencies and systems.

BIL funding will provide the jumpstart needed for systems to begin the process of cataloging the material of every line serving each of their customers. Development of robust service line inventories, and subsequently removing the lead service lines, will be a continued effort over many years. As BIL funding gets rolled out, states will need flexibility in their applications for the capitalization grants so they can access set-asides to use for funding inventory development without having specific lead service line replacements in the state's intended use plan. Given the time necessary to develop inventories, states and water systems will need flexibility funding lead service line replacement projects as they work to locate these lines. State programs are already working with public water systems to understand and comply with the recently finalized Lead and Copper Rule Revisions (LCRR) where lead service line inventories are due to the

state programs by October 2024. EPA guidance is important to understand the requirements of the LCRR and we understand that EPA is moving forward with draft guidance documents.

Once lead service lines have been identified in a drinking water system's inventory, the next step will be to focus on the replacement of those lines. ASDWA requests that EPA provide flexibility for the additional subsidization for all PWSs to be eligible for 100% loan forgiveness for lead service line replacements. A single lead service line replacement can cost on average between \$1,200 to \$12,300²; and across the country, 6.1 to 10.2 million lead service lines need to be replaced in a timely manner³. An estimated 14,000 lead service lines need to be replaced in Albany, New York⁴. A water system with 100,000 lead service lines could need up to \$1.2 billion to remove this lead hazard from their distribution system.

Flexibility in BIL implementation is critical to achieving the goal of helping the systems and communities that need the funding the most.

ASDWA is committed to working with EPA to advance health equity by identifying barriers within the drinking water sector and developing achievable and sustainable solutions for providing safe, reliable drinking water to all communities. This partnership is crucial to achieving the Biden administration's Justice40 goal of providing 40% of the benefits from federal investments to disadvantaged communities.

²EPA's Strategies to Achieve Full Lead Service Line Replacement, 2019.
https://www.epa.gov/sites/default/files/2019-10/documents/strategies_to_achieve_full_lead_service_line_replacement_10_09_19.pdf

³ National Survey of Lead Service Line Occurrence
<https://awwa.onlinelibrary.wiley.com/doi/abs/10.5942/jawwa.2016.108.0086>

⁴ 14,000 lead pipes carry Albany's drinking water. The city wants to replace them.
<https://www.timesunion.com/news/article/14-000-lead-pipes-carry-Albany-s-drinking-water-16411320.php>

To best achieve President Biden's J40 goal, primacy agencies will need maximum flexibility in the way they implement the BIL funds. Within EPA's March 8, 2022, BIL Implementation memo from Assistant Administrator Radhika Fox, the agency makes it clear that the role of defining what constitutes a disadvantaged community lies with the states. ASDWA is appreciative of this clear recognition as those working in the state government and state agencies have the best knowledge of what their communities need.

Ensuring that all disadvantaged communities of any size can access these SRF funds is not a simple task. Many of these communities are incredibly small. For example, we have towns, villages, and manufactured housing communities with very small populations, perhaps serving only 25 people with fewer than twenty homes. These communities do not have the technical or managerial capacity to seek out and apply for the BIL funding through the DWSRF process. A joint effort between the states and EPA can help ensure these communities are getting their specific needs met. We believe this is where a state/EPA jointly developed Technology HUB idea can assist; focused and customized on the needs of the water systems in individual states.

We also need to work to make applying for BIL funds efficient and effective by streamlining the application process for communities. Requirements such as those found within the Buy America, Build America (BABA), and Davis-Bacon (DB) Acts create additional challenges and barriers for these communities that do not have the necessary expertise to navigate the process. ASDWA recommends the development of waivers of these requirements in certain limited circumstances to make these funds simpler to obtain for those most in need.

ASDWA and the states look forward to working with EPA on developing creative solutions to problems facing our industry, including the development of previously noted technical

assistance hubs to provide direct assistance to disadvantaged communities in obtaining BIL funding and implementing critical water infrastructure projects. As we look to implement these hubs, we must ensure that states are equal partners and that there is flexibility in how these hubs can be utilized to best fit the needs of the communities within each state. Primacy agencies are the boots on the ground and know what is most needed in their communities. A partnership between the states and EPA will ensure that these technical assistance resources are placed where they can make the most impact. Our membership believes that this can be an effective tool to further the state/EPA partnership to help streamline the process for systems applying for funding and provide needed relief for state programs that currently fill this role of technical assistance for small systems. Additionally, these hubs can be used to provide technical assistance for all systems, across the drinking water program, including the development of lead service line inventories and preliminary engineering reports that are needed before systems are able to apply treatment for contaminants. Technology HUBs can be one of the tools that helps to build and sustain water system capacity to ensure safe drinking water.

Further, ASDWA supports the use of EPA tools, such as the EJScreen, to help primacy agencies develop a definition of disadvantaged community that best suits the needs of the state's most vulnerable populations. We should also be encouraging the use of other tools that are available, such as the Centers for Disease Control and Prevention's (CDC's) Social Vulnerability Index and the Council on Environmental Quality's (CEQ's) Climate and Economic Justice Screening Tool. We need to utilize all the tools in our toolbox to identify and reach the communities that need us most to ensure safe drinking water.

EPA's BIL memo clearly stated that disadvantaged communities are not limited to small, rural cities and towns. ASDWA has consistently highlighted that smaller communities and neighborhoods within larger water systems can be equally disadvantaged although their circumstances may vary drastically. It is important that EPA and states work together to identify these unique situations and to brainstorm solutions that can be versatile and meet the specific needs of these communities. Flexibility on what can and should be considered a disadvantaged community is needed for successful implementation across each state drinking water program.

Systems that receive BIL funding must be sustainable.

The amount of BIL funding for water infrastructure is unprecedented and we need to collectively ensure that the systems that receive this funding are sustainable for the long term. These systems need to have adequate technical, financial, and managerial (TFM) capacity to continue to appropriately operate and maintain the facilities that are constructed with BIL funds. For example, systems that install treatment for removal of emerging contaminants such as PFAS must have rates that are sufficient to generate the revenue to pay for periodic media replacement and a certified water operator that knows how to operate advanced treatment to ensure proper treatment and water quality. Systems that rehabilitate a treatment plant with BIL funds need to have the ongoing revenue for the appropriate maintenance of those facilities. We want the BIL funds to encourage appropriate sustainable operational and management frameworks that are financially stable. State programs will continue to encourage public water systems to develop and implement asset and fiscal management plans.

EPA and ASDWA's members need to work together to ensure the DWSRFs are sustainable in the balance of loans versus grants/principal forgiveness, i.e., enough funds are paid back so that the funds can be loaned out again. This is a balancing act – ensuring that grants/principal

forgiveness is given to the communities that need them versus the communities that can afford to pay back loans. Since the DWSRF started, the total capitalization grants have totaled a little over \$24 billion, and the pay back of loans, i.e., the revolving, has kept the total funds available for infrastructure construction about the same even with the additional subsidies and set-asides.

The water sector needs a sustainable workforce through the timeframe of the BIL funding and beyond. Adequate staff is needed at state agencies and water systems to finance, design, build and provide appropriate oversight for all the BIL construction, including consulting engineers, technical service providers, and construction suppliers and contractors. We need to collectively build a sustainable workforce of engineers, scientific staff, environmental analysts, and system operators for the long run – this is a significant issue in the water sector. Between the “Silver Tsunami” (baby boomers retiring) and the “Great Resignation” from the pandemic, finding qualified scientists, engineers, analysts, and operators is more than challenging. State programs are already building up new recruiting and staff sustainability processes to provide more opportunities for growth in our industry. Workforce development programs with continuous recruitment plans are now a necessary part of a state's drinking water program.

We need to ensure that all water infrastructure is sustainable for the long term. We need to ensure the appropriate balance of BIL funds for lead service line replacements and treatment for emerging contaminants and the remainder of funds for much needed treatment plant upgrades, new sources of supply and for addressing the aging drinking water infrastructure such as distribution system lines, storage tanks, booster pumping stations, etc. EPA's Sixth Drinking

Water Needs Survey⁵ estimated that \$472.6 billion is needed to maintain and improve the nation's drinking water infrastructure over the next 20 years. EPA's estimated total national need is more than fifteen times the BIL funding for drinking water infrastructure and for drinking water, failure is not an option. However, historic lack of investment in this critical infrastructure will continue to have the potential to pose a significant public health risk should deficiencies not be recognized or addressed. The BIL investment is an amazing opportunity, and it is an excellent boost in addressing the current and future needs of our drinking water infrastructure.

As we work to address the growing threats posed by aging infrastructure and both natural and man-made contaminants, drinking water is also facing new and increased threats from intentional and malicious sources. To ensure security and sustainability for the long term, we must recognize and address the growing cybersecurity threat facing our water systems and states. ASDWA membership has and will continue to work with EPA and the Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA) to ensure that our critical water infrastructure continues to be resilient and sustainable in the face of a malicious attack. We are committed to development of a comprehensive playbook that consistency and effectively works to address this ongoing threat to our nations drinking water.

As we participate in this hearing, ASDWA's members are working hard on BIL implementation and are already moving forward with open calls for projects under state's DWSRF programs. This unprecedented funding will improve the country's infrastructure and improve public health protection. We look forward to keeping Congress informed of our progress, truly appreciate this opportunity to provide our collective input from our 57 state and territory membership, and again

⁵ EPA's 6th Drinking Water Infrastructure Needs Survey and Assessment, 2021.
<https://www.epa.gov/dwsrf/epas-6th-drinking-water-infrastructure-needs-survey-and-assessment>

we sincerely thank you for the BIL funding to address safe drinking water and improve public health protection.

Again, thank you Chairman Tonko, Ranking Member McKinley, and Members of the Subcommittee for this opportunity to appear before the Subcommittee.

Mr. TONKO. You are most welcome. Thank you, Ms. Mathieu.
 And next we move to Mr. Adeem. Let me congratulate you and Newark on the efforts you have made and the achievement.
 So you are recognized, sir, for 5 minutes please.

STATEMENT OF KAREEM ADEEM

Mr. ADEEM. Thank you, Chairman Tonko, Ranking Member McKinley, and subcommittee members, and Congressman Pallone, New Jersey's own.

Good morning. It is an honor to be here in front of this congressional Subcommittee on Environment and Climate Change, and I would especially like to just, you know, thank the Congress for the bipartisan infrastructure bill.

This bill the city of Newark has seen firsthand how investment in infrastructure can impact communities. This investment is not just in our water and wastewater infrastructure. This bill is going to provide human capital infrastructure.

You know, from employing local residents to come and work on union-scale jobs to remove lead service lines, to installing water mains, but also having Mom and Pop businesses take a part of what is going on in their community.

Moreover, the bipartisan infrastructure bill is the most significant investment in the Nation in my lifetime. This bill is an essential step in the right direction to provide safe drinking water to everyone in America.

In addition, the Federal Government will invest infrastructure upgrades and provide economic capital to communities, like others in New Jersey. I have witnessed the investment benefits in water infrastructure improvements firsthand and would like to just share a couple of them with the committee.

I would like to talk about our lead service line replacement program. With the investment in human capital and the solution to a long-neglected problem, of the 200 million spent on repair and replacement of lead service lines, 70 percent of that money stays in the local community, the city of Newark.

In the State and the community when we hired local contractors, subcontractors and emphasized that they hire Newark residents from the union apprenticeship program that we created, and we created a unique program with assistance from the city's Department of Workforce Development, our State Department of Labor, and the Local Union 472.

Collaboration made the success of this program appreciated. The apprenticeship program trained into a dozen of our residents the skills that they need for the future to earn middle-class salaries and get permanent jobs, permanent union jobs.

As more cities replace lead service lines and start water infrastructure with Federal infrastructure money, our residents will find continued employment.

In addition, we have women and minority-owned business find business opportunities for these projects, support in everything from engineering inspections to printing door hangers, to informing our residents in community meetings.

One of tremendous successes is the joy of community being a part of the economic investment. They actually see it. A lot of times when we look at government doing a project, we look at our highway system. No disrespect to the highway system. We always see that construction lasts for decades.

You can ride down the New Jersey Turnpike. We can ride down I-95, and we always see construction going on. However, no one takes a look at water and wastewater needs because it is a buried asset.

This buried asset is only brought upon light when there is a crisis or we have a major flooding event or water main break where there is a lack of water, and everyone wants to know then that we need hurry up and fix our aging infrastructure.

As fellow Congress members today pointed out, the American Society of Engineers gives us a C average. We are in the greatest country in the world. We should have an A. We should have an A for infrastructure.

You know, investments in water are an investment in human capital because we are protecting valuable lives with drinking water.

So I leave here today. I just want to say, one, engage with your State. A part of making these programs efficient and effective would be engaging with your State Revolving Loan Program early. Have meetings and conversation with them to understand the process, limits of funding, the terms, and construction long-term financing.

Lead service lines are on the homeowner's property. We have to make sure we have special legislation in place to remove lead service lines by spending public money on private property.

Schedule meetings with your local county and State officials. The infrastructure money is to be used to replace infrastructure, not to be held up by bureaucratic red tape in the permitting process.

In Newark, most disadvantaged people rent. In other major cities, too. Seventy-four percent of our residents in the city of Newark are renters. We needed a council ordinance to pass to make sure we had the right of access to go on private and replace lead service lines.

We understand that collaboration on the Federal, State, and local level will move projects forward, but we understand that there are emerging contaminants that also need to be addressed, and this infrastructure funding bill will provide the needed necessities to move it forward.

Thank you.

[The prepared statement of Mr. Adeem follows:]



Department of Water and Sewer Utilities

A City We Can All Believe In

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March 24, 2022

Honorable Congressman Paul Tonko, Chairman
Sub Committee on Environment and Climate change
2125 Rayburn House Office Building
Washington, DC 20515-6115

Good morning. It is an honor to speak before the Congressional Subcommittee on Environment and Climate, and I'd especially like to thank Congressman Paul Tonko for extending the invitation.

As you may know, Newark completed a significant infrastructure project, replacing all the City's 23,000 lead service lines in three years. No other city has removed and replaced lead lines as fast, efficient, and effective. Moreover, we did this with no cost to residents in either capital outlay, taxes, or water rate hikes. We also did it by investing our own money and using the state revolving loans program (NJ-I-Bank) thru the federal government that contributed a \$200 million project.

The new bi-partisan infrastructure bill will be the most significant investment in the nation's necessary functions I've seen in my lifetime. This bill is an essential step in the right direction to providing safe drinking water to everyone in America. In addition, the federal government will invest in infrastructure upgrades and provide economic capital to communities. Like many others in New Jersey, I have witnessed these investment benefits firsthand and would like to share them with this committee.

I'd first like to talk about how our service line replacement program was the investment in human capital and a solution to a long-neglected problem. Of the \$200 million spent to repair the lines, about 70 percent of that money stayed in the City. We hired local Newark contractors' subcontractors and emphasized that they hire Newark residents from the union apprentice program. We created a unique program with assistance from the city department workforce development, the state department of labor, and union local 472. This apprenticeship program trained and taught dozens of our residents the skills and earned middle-class wages offered by union jobs. As more cities replace lead lines and start water infrastructure with federal infrastructure money, our residents will find continued employment. In addition, we helped women- and minority-owned businesses find opportunities for project support in everything from engineering inspections to printing door hangers to inform our residents. One of the tremendous successes is the joy of community being a part of economic investment.

Now, I'd like to share the five components of our lead line project we feel every City, Town, and State must put in place, so funds reach their maximum potential effectively and efficiently at all levels with excellent outcomes.

- 1) Engage with your state revolving loan program early as possible; these conversations will help you understand the process, limits, and funding terms for construction and long-term financing.
- 2) Since lead service lines are the homeowner's property, we had to ask our state legislature to pass a law allowing us to use public funds on private property. This legislation allowed us to offer lead-line replacement to residents for free. Without it, many residents who could not afford abatement replacement would remain vulnerable to the impact of lead in drinking water. Others, including landlords, could have refused based on cost.
- 3) Schedule meetings with your local, county, and state elected officials regarding legislation and jurisdictional permitting.
- 4) In Newark, most disadvantaged people rent as in other major cities, which compromised 74 percent of the resident are renters. Therefore, our City Council needed to pass an ordinance that allowed us to go onto private property without the owner's consent. While at first, this might feel like government overreach, it saved us an enormous amount of time tracking down landlords, getting their permission, and gaining access. Renters mustn't be at the mercy of landlords to get the purest water possible.
- 5) With access and cost no longer an issue, we were able to ask for maximum performance from our contractors to advance down our streets, replacing every line, block by block. This approach saw us repairing as many as 120 pipes a day as 25 crews worked around the City.

We showed in Newark that we had the political will to get it done, and it takes the commitment of all levels of government to approve funding and other legislation to make such a program possible.

The problem of contaminated drinking water, like many health issues, disproportionately affects Black and brown people in cities across America but is indiscriminately found in suburbs and rural communities alike. It is, therefore, a crisis of significant magnitude.

Lead is only part of the problem. We have a looming crisis with forever chemicals like PFAS, PFOS, and PFOAs infrastructure bill funding can be applied to tackle these problems. However, we have learned from lead that temporary solutions don't always work and become more costly over time. For example, in 1986, an estimated \$6 billion was needed to replace the nation's lead lines. Now the price tag is estimated more than ten times the amount. Another problem is our country's outdated, aged, and disrepair water wastewater systems.

I hope this bill makes leaders throughout the country decide to no longer 'kick the can down the road' and invest in their people and community by doing needed infrastructure work.

Thank you again for allowing me to tell our story.

City of Newark



Department of Water and Sewer Utilities

Kareem Adeem
Director

Mr. TONKO. Thank you, Mr. Adeem.

And now we will move to our next witness who is joining us virtually. Mr. Diaz, you are recognized please for 5 minutes.

STATEMENT OF RICHARD DIAZ

Mr. DIAZ. Thank you, Chair Tonko, Ranking Member McKinley, and members of the committee.

My name is Richard Diaz, and I am the Midwest Regional Field Organizer with the BlueGreen Alliance. We are a national partnership of labor unions and environmental organizations.

Thank you for convening this hearing on upgrading America's drinking water infrastructure. As it was stated earlier, our Nation's drinking water infrastructure received a grade of a C-minus by the American Society of Civil Engineers.

The good news is that the \$55 billion investment in water infrastructure within the bipartisan infrastructure law is the largest Federal investment we have ever seen in our water systems, and it is a significant down payment on the \$434 billion investment gap identified in the ASCE's 2021 infrastructure report card.

Fifteen of that \$55 billion investment will be to fund the replacement of lead service lines. There is no safe level of lead exposure. Communities of color and low-income communities often bear the brunt of the hazard of lead water contamination.

Eliminating lead exposure in our water systems cannot only keep communities healthy, but also create good paying jobs and boost local economies across the country, particularly if impacted communities are hired to do this work.

An analysis by the BlueGreen Alliance found that the \$15 billion investment for lead service line replacement would result in the creation of about 200,000 jobs over ten years. Those same investments made by the bill will greatly benefit the construction industry.

For example, plumbing, pipefitting, and steam-fitting all have an industry that currently employs about 300,000 workers, and there is expected to be a job growth of about 16 percent through 2026. This investment will be a massive job creator for American manufacturing thanks to strong domestic procurement and prevailing wage provisions.

According to the Alliance for American Manufacturing, Buy America provisions lead to 33 percent increase in manufacturing jobs per dollar of public spending.

At McLean Ductile Pipe in Ohio, members of the United Steel Workers Local 7014 produced ductile iron pipe used in water infrastructure. Buy America helps keep this facility open and provides a foundation for more good union jobs in the decades to come.

We also have to make sure that these are not just good jobs but accessible jobs. This means supporting and growing pathways into good union water sector jobs for women and workers of color historically underrepresented.

Provisions needed to ensure these jobs are good and accessible include registered apprenticeships, free apprenticeship programs, and other union affiliated training programs as well as project

labor agreements, community workforce agreements, and community benefits agreements.

The bill also includes a number of changes that will help direct funding to communities that need it most. The requirement that 49 percent at least of that funding be distributed as grants or forgivable loans.

This will be help for people like Ms. Ledora Meadows from my hometown of Milwaukee, Wisconsin. She is someone who has been in the same house for over four decades in a neighborhood with a median income level that is well below the poverty line, and she is someone who is taking care of many children in the neighborhood, some of those lead poisoned children, and she has decided to get her lead service line replaced.

Trying to protect her family from lead exposure, Ms. Ledora ended up with a bill of more than \$1,000, and that is \$1,000 she does not have.

Resources in the bill will help families like Ms. Ledora's, but it will be crucial for the EPA to provide technical assistance for communities applying for funds to ensure that disadvantaged communities benefit equitably from these investments.

The bill's funding will help rebuild our Nation's water infrastructure and will help protect Americans from the irreversible damage of lead poisoning. We will save billions of dollars that would have been spent on medical treatments, special education, crime and juvenile delinquency caring for lead poisoned individuals.

We also save billions of dollars in treated water that is lost from water main breaks and leaks. This translates into benefits for the environment and for all rural, urban, and suburban communities, and we do it while creating high quality union jobs not only at construction job sites, but at manufacturing facilities down the supply chain.

The bill's investment and continued investment in our water infrastructure is a win for our country.

Thank you, again, for the opportunity to speak today.

[The prepared statement of Mr. Diaz follows:]



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

WRITTEN TESTIMONY

Richard Diaz

Midwest Regional Field Organizer, BlueGreen Alliance

Before the 117th U.S. Congress

House Committee on Energy & Commerce

Subcommittee on Environment and Climate Change

Trusting the Tap: Upgrading America's Drinking Water Infrastructure

Tuesday, March 29, 2022

Thank you, Chair Tonko, Ranking Member McKinley, and members of the committee. My name is Richard Diaz, and I am the Midwest Regional Field Organizer with the BlueGreen Alliance (BGA), a national partnership of labor unions and environmental organizations. On behalf of my organization, our partners, and the millions of members and supporters they represent, I want to thank you for convening this hearing about upgrading America's drinking water infrastructure.

The BlueGreen Alliance unites America's largest and most influential labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that Americans don't have to choose between a good job and a clean environment—we can and must have both. Investing in upgrading our water infrastructure provides an opportunity to address environmental and health impacts, create good jobs, and inject equity into our society as we work to rebuild our economy and recover from the COVID-19 pandemic.

Our nation's drinking water, wastewater, and stormwater infrastructure is vital to the protection, treatment, and distribution of clean water. However, age, strain from population growth, lack of investment, the pervasiveness of lead pipes, and emerging threats from climate change have increased the burden on the current water infrastructure system and the health risks to communities. The nation's wastewater and drinking water infrastructure received grades of "D+" and "C-" by the American Society of Civil Engineers (ASCE), respectively.¹

Maintenance and improvement of water infrastructure have become increasingly difficult for communities to afford. As these costs are passed on to consumers, existing affordability problems are exacerbated for many communities and individuals across the

country. Communities of color and low-income communities are disproportionately affected by unaffordable water rates and failing water infrastructure.ⁱⁱ The cost of water and wastewater services have more than doubled in the past 20 years, at the same time incomes of low and moderate income households have essentially remained unchanged.ⁱⁱⁱ Federal water infrastructure funding can address this problem by directing assistance to the communities that need it most—like those facing large gaps between their infrastructure needs and their ability to pay.

Finally, the COVID-19 pandemic cast a spotlight on—and exacerbated—the fissures in our economy and social safety net. Unsurprisingly, the burden of COVID-19 cases and deaths in the U.S. fall disproportionately on people of color.^{iv} It also magnified the existing challenges facing communities and their water systems as access to clean, safe water for handwashing and disinfecting became a key preventative measure.

The good news is that the water infrastructure investments in the Bipartisan Infrastructure Law (BIL) are a win-win. Water infrastructure investments will boost our economy and create and sustain thousands of jobs while ensuring communities have safe water and water systems resilient to climate change. The BIL invests \$55 billion in our water systems—the largest federal investment ever. This \$55 billion is a significant down payment on the \$434 billion investment gap identified in the ASCE 2021 infrastructure report card^v.

We have the opportunity to address some of these challenges as we work to implement the Bipartisan Infrastructure Law (BIL), and do so in a way that protects and creates good union jobs, delivers public health and environmental benefits, addresses economic and racial injustice head on, and creates a cleaner, stronger, and more equitable economy for all.

The BIL includes the largest federal investment in water *ever*, but more is needed. The BIL only includes a third of the total funding needed for full lead service line replacement. Additionally, the legislation provides no funding for low-income water assistance, and other funding gaps for other critical water infrastructure programs such as the U.S. Environmental Protection Agency’s (EPA) Small and Disadvantaged Communities Program. Some of these gaps are filled in House-passed budget reconciliation legislation.

The investments and policies included in the BIL—when coupled with a robust budget reconciliation bill—will create good-paying, union jobs across the nation while improving public health and helping tackle income and racial injustice.

The BIL Provides Key Investments in Water Infrastructure

Lead Service Line Replacement

The BIL provides a little over \$15 billion to fund the replacement of lead service lines and other lead remediation activities. This funding is important to improving public health and addressing inequality. As many as 12.8 million homes^{vi} around the country get their water through lead pipes and service lines. Lead is a toxic metal that harms the brain and nervous system and is especially harmful during pregnancy and infancy when it can decrease IQs, diminish academic abilities, and increases attention deficits and other problem behaviors.

There is no safe exposure level. Even the lowest blood lead levels can affect the developing brain and central nervous system having irreversible effects. Communities of color and lower-income communities often bear a disproportionate brunt of the hazards of lead water contamination.^{vii} Eliminating lead exposure in our water systems can not only keep communities safe and healthy, but also create good-paying jobs and boost local economies across the country—particularly if members of the impacted communities themselves are hired to do this work. Analysis by the BlueGreen Alliance found the \$15 billion for lead service line replacement in the BIL would result in the creation of 200,700 jobs over 10 years. Adding the additional \$10 billion for lead service line replacement included in the house-passed Build Back Better Act, would result in 131,250 direct, 84,500 indirect, and 118,750 induced jobs, a total of 334,500 jobs over 10 years.^{viii}

Investing in lead service line replacement not only prevents lead poisoning and creates jobs, but also saves taxpayers money in the long run. According to the Centers for Disease Control and Prevention's (CDC) 2019 Healthy Housing fact sheet, keeping the blood lead levels of all children across the country born in 2018 at zero would result in \$84 billion dollars in future benefits.^{ix} This includes saving billions of dollars in health care and education savings, as well as increasing future earning potential. Protecting children born in 2018 from lead poisoning would result in a cumulative increase of lifetime earnings somewhere in the ballpark of \$77 billion dollars.^x My home state of Wisconsin reports that if lead poisoning in children were completely eliminated, annually the state would save \$7 billion in costs for medical treatments, special education, crime, and juvenile delinquency.^{xi}

PFAS and Emerging Contaminants

Lead is not the only public health concern. In addition to lead, contaminated water exposes communities to harmful chemicals such as arsenic and per- and polyfluoroalkyl substances (PFAS). More than 27 million Americans get their water from systems that violate health standards, and again, low-income communities and communities of color are disproportionately impacted by this contaminated water.^{xiii} The BIL funds a \$10 billion down payment on the cleanup of PFAS and other emerging contaminants. This includes \$5 billion in grants for small and disadvantaged communities, \$4 billion for utilities to address PFAS in drinking water systems, and \$1 billion to help wastewater utilities address PFAS in wastewater discharge. Right now, most utilities do not test for the presence of PFAS or remove them from water they serve. This funding is an important down payment that will allow the country to begin tackling this problem.

Drinking and Clean Water Infrastructure

The aging state of our nation's water infrastructure is staggeringly wasteful. Many U.S. communities rely on pipes that are a century old. These pipes leak 6 billion gallons of clean drinking water daily—approximately 14% of treated water—wasting energy and water and disrupting businesses and communities. Additionally, there are an estimated 240,000 water main breaks per year in America—or 700 per day.^{xiii} All that waste from ineffective water distributions systems adds up to a lost \$2.6 billion dollars a year in the United States—enough water for 68 million Americans.^{xiv} Estimates suggest aggressive action to remedy our ailing water systems could save \$1.7 billion,^{xv} and a Chicago State University study showed that reducing the amount of water leaked annually in the U.S. by only 5% would save enough energy to power 31,000 homes for a year and cut 225,000 metric tons of CO2 emissions.^{xvi}

Climate change also strains our nation's water infrastructure. The Drinking Water and Clean State Revolving Funds (DW SRF/ CW SRF) are the main sources of funding for states not only to update and maintain water infrastructure, but also to ensure that this infrastructure is resilient to climate change. One study from the National Association of Clean Water Agencies (NACWA) estimated that states will need an additional \$448 to \$944 billion dollars by 2050 to reengineer water systems to cope with sea level rise, extreme weather events, droughts, and floods.^{xvii} The EPA estimates that just that capital cost of clean and drinking water infrastructure over the next 20 years is \$744 billion dollars.^{xix} The DW SRF and CW SRF received a historic infusion of funding in the

BIL—\$23.5 billion—split equally between the two programs. This is a massive step forward, and provides a significant down payment on the investment needed to upgrade our water systems.

Maximizing benefits for workers and communities

The water infrastructure investments made by the BIL will greatly benefit the construction industry. For example, the plumbing, pipefitting, and steamfitting industry currently employs 324,500 workers and is expected to see job growth around 15.6% through 2026.^{xx} Similar job growth will occur in other water infrastructure jobs. For example, pipelayers will see a 17.2% increase above the current 33,810 jobs, and other related jobs will see an 18.6% increase.^{xxi} BIL water infrastructure investments will also accelerate job growth in every sector of the economy. This means increased numbers of steelworkers, utility workers, painters, laborers, operating engineers, electricians, public sector employees, and other union workers to manufacture, maintain, upgrade, and operate these systems. We need steelworkers to manufacture the pipes, painters to apply the industrial coatings that protect water infrastructure from corrosion, plumbers and pipefitters to replace lead service lines, and utility workers to ensure that drinking water is clean and wastewater is treated and made safe for the public and the environment. We have to make sure these are not just good jobs, but *accessible* jobs. This means supporting and growing pathways into good union jobs—often through apprenticeships and pre-apprenticeships—in these and other sectors for workers of color and other segments of the population historically underrepresented in these jobs.

At the same time, challenges remain in recruiting, training, and retaining workers in the water sector—one-third of the water sector workforce is eligible for retirement in the next decade.^{xxii} Additionally, roughly 85% of water workers are male and two-thirds are white.^{xxiii} There is clearly a need for younger, more diverse workers. This is especially crucial if the communities most impacted by failing water infrastructure are to see the full benefits of the jobs created by BIL funding. The BIL addresses this by directing EPA to establish an interagency working group and reauthorizing and expanding the Innovative Water Infrastructure Workforce Development Grant Program. Both of these actions are intended to address recruitment, training, and retention of the water sector workforce.

Workforce funding included in the BIL will also support existing union training and apprenticeship programs. For example, the United Association of Union Plumbers and Pipefitters (UA) has dozens of training centers across the country. One of these training centers, run by Plumbers Local 5 and located just outside Washington D.C., has

been training apprentices since 1940. Another example is the Utility Workers Union (UWUA)'s "Power for America Training Trust Fund" which provides critical training that helps ensure workers and employers in high-hazard industries maintain safety and worker protection in the workplace. Well-trained workers are safer workers and, in turn, are better equipped to ensure communities receive the best possible service.

A number of policy levers exist to build a competitive clean economy and help ensure that investments create good, union jobs, community benefits—particularly for targeted constituencies—and help reduce the income inequality that has harmed the American middle class. The BIL includes some codified policy tools, and notably, runs most water infrastructure funding through the CWSRF and DWSRF. Two key policies, Buy America and Davis Bacon, have long been attached to the funding in these SRFs. EPA's recent implementation guidance clearly states the agency's intention to uphold and enforce these policies in BIL implementation.^{xxiv}

Davis Bacon & Buy America

Davis Bacon Prevailing Wage establishes a wage floor for each occupation that all contractors on a project must pay at or above—typically set to reflect the average or market wage for workers employed in the construction industry. Many state and local governments establish a prevailing wage for public works projects, and at the federal level, the Davis Bacon Act establishes prevailing wage rates for federal construction projects. Requirements or incentives for contractors to pay the prevailing wage can be extended to privately developed projects such as new power generation facilities. Davis Bacon applies to nearly all the water infrastructure funding in the BIL, ensuring that workers will receive good wages for these projects.

Buy America is a domestic procurement policy requiring certain materials for public infrastructure projects to be produced in the United States. Buy America domestic procurement requirements have a long-standing history of maximizing the return on investment to taxpayers and our economy. Requiring domestic content in infrastructure projects boosts domestic workers and manufacturers, and creates broad economic growth while spurring domestic manufacturing. According to the Alliance for American Manufacturing, Buy America provisions lead to a 33% increase in manufacturing jobs per dollar of public spending.^{xxv} A GAO report found that water projects subject to Buy America provisions in the American Recovery and Reinvestment Act of 2009 were lower in cost than estimated.^{xxvi}

The investments included in the BIL will be massive job creators not just at project sites across the nation, but—thanks to strong domestic procurement policy—will also support American manufacturing. Infrastructure projects in particular are massive undertakings requiring huge amounts of building materials like iron, steel, and concrete. These are materials that have been manufactured in the United States for decades and longer, but—due in part to misguided trade policy and a lack of adequate industrial policy—these industries have taken a hit as global competition has grown. It is critical that the taxpayer dollars being used to fund the historic investments in these two bills are used in ways that support American manufacturing and workers and communities here at home. This can be accomplished through strong domestic procurement policies such as those embedded in the Drinking and Clean Water SRFs and found in EPA’s implementation guidance.^{xxvii} The BIL also permanently extended Buy America for funding distributed from the DWSRF, making it equivalent with CWSRF policy.

One example of how American manufacturing and workers directly benefit from Buy America can be found at McWane Ductile Pipe in Coshocton, Ohio. At this facility, members of United Steelworkers Local 7014 produce ductile iron pipe used in water infrastructure. Buy America helps keep this facility open and provides the foundation for more good union jobs in decades to come.

The BIL also includes a significant expansion and modernization of Buy America called “Build America, Buy America” (BABA). Buy America requirements already extended to public-works transportation and water-related infrastructure. BABA will expand the application of Buy America preferences to nearly all infrastructure programs and projects, and will ensure that Buy America is applied more consistently and with fewer waivers, which will not only create more opportunities for American workers to benefit from federal infrastructure investments, but will improve the efficiency with which these preferences are applied.

Additional Labor Provisions

The EPA has indicated that it will encourage the use of additional high-road labor standards in BIL funding, but enforcement will also be necessary. Other provisions that will be needed to ensure the jobs created by BIL infrastructure investments are *good jobs* include:

- **Registered apprenticeship, pre-apprenticeship programs, and other union-affiliated training programs.** Strong unions can play a key role in promoting diversity, equity, justice, and inclusion within these programs. A BlueGreen

Alliance analysis of the U.S. Department of Labor's (DOL) Registered Apprenticeship Partners Information Database System (RAPIDS) found that in the construction industry, 43% of apprentices were people of color in union programs, compared to 33% people of color in non-union programs. However, enrollment in these programs only shows one small metric by which to judge if these programs work to advance the careers of people of color. For true equity and justice to be sustained, officials must focus not solely on enrollment rates, but must carry that focus to retention and promotion within the workplace, that means, in part, working to ensure that apprentices have not only the technical skills, but also the professional tools they need to succeed. Through its BIL implementation guidance, the EPA Office of Water has explicitly said it will "encourage pre-apprenticeship, registered apprenticeship, and youth training programs that open pathways to employment."^{xviii}

Pre-apprenticeship programs in particular have become a key tool to improving diversity in the building trades. Such programs aim to ensure that workers can qualify for entry into an apprenticeship program and have the skills they need to succeed. These programs are generally designed to target certain populations or demographics such as low-income workers, workers of color, women, and other marginalized communities. Additionally, many unions offer training throughout a member's career to enable them to stay up to date with changes in technology.

- **Project Labor Agreements (PLAs), Community Workforce Agreements (CWAs), and Community Benefit Agreements (CBAs).** PLAs are collective bargaining agreements that are negotiated in advance of a project. The encouragement of the use of PLAs on federally funded projects is not a new policy. In a 2009 executive order, former President Obama ordered that "it is the policy of the Federal Government to encourage executive agencies to consider requiring the use of project labor agreements in connection with large-scale construction projects in order to promote economy and efficiency in Federal procurement." Community Workforce Agreements (CWAs) and Community Benefit Agreements (CBAs) are beneficial tools for communities when included with PLAs. They can be more expansive in scope, and are sometimes negotiated with both union and community partners. CWAs go beyond PLAs and are focused on creating opportunity in, and maximizing benefits to, local communities. In addition to the collective bargaining aspects of a PLA, CWAs frequently include local hire provisions, targeted hire of low-income or disadvantaged workers, and the creation of pre-apprenticeship pathways for careers on the project. EPA's BIL implementation guidance says it will "encourage SRF funding recipients to

support safe, equitable, and fair labor practices by adopting collective bargaining agreements, local hiring provisions (as applicable), project labor agreements, and community benefits agreements.”^{xxxix}

Justice40 and Other Targeted Community Investments

The BlueGreen Alliance is working to ensure that the BIL will improve economic, racial, and environmental justice across the United States. Our approach is informed by our Solidarity for Racial Equity platform and the Biden administration's Justice 40 Initiative. To ensure that new government policies help dismantle structural racism and target federal resources to the workers and communities that need them most, President Biden established a Justice40 Initiative to ensure that 40% of federal investments benefit disadvantaged communities. This includes funding set asides, funding prioritization, and guidance that instructs agencies to maximize benefits for communities or workers, including environmental justice communities and/or communities impacted by energy transition. .

The BIL includes a number of significant changes to underlying law that will help direct funding to communities that need it the most, including significant changes to SRF policy. A minimum of 49% of BIL funding must be distributed as grants or forgivable loans, and the state match requirement reduced to 10% for the first two years of funding. In addition, the BIL makes permanent changes to SRF funding. This includes increased authorization levels for both SRFs, and the first-ever permanent requirements that states annually put a minimum of 10% CWSRF and 12% of DWSRF funds towards grants and forgivable loans. Importantly, these changes apply to all future appropriated funds, not just the one-time influx of BIL funding.

The EPA's implementation guidance also focuses on maximizing equitable implementation of the BIL's water infrastructure investments, including working quickly to replace lead service lines; prohibiting partial lead service line replacement, and requiring states to resubmit Intended Use Plans (IUPs) to ensure that disadvantaged communities benefit equitably from these investments, and providing technical assistance for communities applying for BIL funds. It will be crucial that EPA—and Congress—conduct oversight to ensure these funds deliver clean, safe water to communities across the country.

With the right tools in place, the investments included in the BIL can not only repair our infrastructure, help address the climate crisis, and revitalize our manufacturing sector, but can also fight the interconnected crises of income inequality and racial inequity: by

incentivizing the use of union labor, mandating that workers are paid a fair wage, utilizing registered apprenticeship and pre-apprenticeship programs, ensuring equitable access to the jobs that these bills will create, prioritizing workers and communities most in need, and building pathways into good-paying careers for workers across the nation.

Conclusion

The BIL will help rebuild and modernize our nation's water infrastructure and create good-paying, union jobs across the nation while making some important investments to address climate change. Careful attention to implementation will be needed to ensure the bill translates into benefits for the environment and disadvantaged communities, and that the law will create high quality union jobs not only at construction job sites, but at manufacturing facilities down the supply chain through the use of strong labor and equity provisions.

Thank you again for the opportunity to speak today.

ⁱAmerican Society of Civil Engineers, *2021 Report Card for America's Infrastructure*, 2021. Available online: https://infrastructurereportcard.org/wp-content/uploads/2020/12/National_IRC_2021-report.pdf

ⁱⁱClean Water For All, *Water, Health, and Equity: The Infrastructure Crisis Facing Low-Income Communities & Communities of Color—and How to Solve It*, 2018. Available online: https://www.nrdc.org/sites/default/files/media-uploads/cwfa_infrastructure_health_equity_white_paper_-_oct_2018.pdf

ⁱⁱⁱBrookings, "Striking a better balance between water investment and affordability," 2016. Available online: <https://www.brookings.edu/blog/the-avenue/2016/09/12/striking-a-better-balance-between-water-investment-and-affordability/>

^{iv}Kaiser Family Foundation, *COVID-19 Cases and Deaths by Race/Ethnicity: Current Data and Changes Over Time*, February 2022. Available online: <https://www.kff.org/racial-equity-and-health-policy/issue-brief/covid-19-cases-and-deaths-by-race-ethnicity-current-data-and-changes-over-time/>

^v*Ibid.*

^{vi}Natural Resources Defense Council, *Lead Pipes are Widespread and Used in Every State*, 2021. Available online: <https://www.nrdc.org/lead-pipes-widespread-used-every-state>

^{vii}Centers for Disease Control, *Childhood Lead Poisoning: Population at Higher Risk*. Available online: <https://www.cdc.gov/nceh/lead/prevention/populations.htm>

^{viii}BlueGreen Alliance, *Build Back Better Investments Will Create Jobs Across the Country*, 2021. Available online: <https://www.bluegreenalliance.org/site/build-back-better-investments-will-create-jobs-across-the-country/safe-drinking-water/>

^{ix}Centers for Disease Control, *2019 Healthy Housing Fact Sheet*. Available online: https://nchh.org/resource-library/fact-sheet/healthy-housing-agency_2019-bundle.pdf

^xPew Charitable Trusts, *10 Policies to Prevent and Respond to Childhood Lead Exposure: An assessment of the risks communities face and key federal, state, and local solutions*, 2017. Available online: <https://www.pewtrusts.org/en/research-and-analysis/reports/2017/08/10-policies-to-prevent-and-respond-to-childhood-lead-exposure>

^{xi}Wisconsin Department of Health Services, *2014 Report on Childhood Lead Poisoning in Wisconsin*, 2014. Available online: <https://www.dhs.wisconsin.gov/publications/p01202-14.pdf>

- ^{x8} Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, 56 Fed. Reg. 26,460, 26,468 (June 7, 1991) (codified at 40 C.F.R. Part 141 Subpart I) (“Lead and Copper Rule”).
- ^{x9} American Society of Civil Engineers, *2021 Report Card for America’s Infrastructure*, 2021. Available online: https://infrastructurereportcard.org/wp-content/uploads/2020/12/National_IRC_2021-report.pdf
- ^{x10} U.S. EPA *Aging Water Infrastructure Research Program: Addressing The Challenge Through Innovation*, 2007. Available online: https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=185093.
- ^{x11} ITT Corporation, *Value of Water Survey*, October 2010. Available <http://www.itt.com/News/Releases/2010/ITT-Value-of-Water-Survey-reveals-that-Americans/>
- ^{x12} Water in the West, *Water and Energy Nexus: A Literature Review*, 2013. Available online: http://waterinthewest.stanford.edu/sites/default/files/Water-Energy_Lit_Review_0.pdf
- ^{x13} Chicago State University, *The Carbon Footprint of Water*, 2009. Available online: <http://www.csu.edu/cerc/researchreports/documents/CarbonFootprintofWater-RiverNetwork-2009.pdf>
- ^{x14} National Association of Clean Water Agencies (NACWA), *Confronting Climate Change: An Early Analysis of Water and Wastewater Adaptation Costs*, 2009. Available online: <https://www.nacwa.net/galleries/climate-change/ConfrontingClimateChangeOct09.pdf>
- ^{x15} Congressional Research Service (CRS), U.S. Environmental Protection Agency (EPA) Water Infrastructure Programs and FY2021 Appropriations, 2021. Available online: <https://crsreports.congress.gov/product/pdf/IF/IF11724/3>
- ^{x16} Bureau of Labor Statistics, “The employment outlook for occupations tasked with building America’s infrastructure,” 2018. Available online: https://www.bls.gov/opub/btm/volume-7/the-employment-outlook-for-occupations-tasked-with-building-americas-infrastructure.htm?view_full
- ^{x17} Brookings, *Metropolitan Policy Program, Renewing the Water Workforce*, June 2018. Available online: <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf>
- ^{x18} Environmental Protection Agency, Water Sector Workforce. Available online: <https://www.epa.gov/sustainable-water-infrastructure/water-sector-workforce>
- ^{x19} Brookings, *Metropolitan Policy Program, Renewing the Water Workforce*, June 2018. Available online: <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf>
- ^{x20} Environmental Protection Agency, “Memorandum: Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law,” March 2022. Available online: https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf
- ^{x21} Alliance for American Manufacturing, *How Infrastructure Investments Support the U.S. Economy: Employment, Productivity, and Growth*, January 2009. Available at http://s3-us-west-2.amazonaws.com/aamweb/uploads/research-pdf/Infrastructure_2009.pdf
- ^{x22} GAO, *Clean Water Projects Are Underway, but Procedures May Not Be in Place to Ensure Adequate Oversight*, May 2010. Available at: <https://www.gao.gov/assets/130/124764.pdf>
- ^{x23} Environmental Protection Agency, “Memorandum: Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law,” March 2022. Available online: https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf
- ^{x24} Environmental Protection Agency, “Memorandum: Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law,” March 2022. Available online: https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf
- ^{x25} *Ibid.*

Mr. TONKO. You are most welcome, Mr. Diaz, and thank you for your participation.

And finally we turn to Mr. McGoff, who is recognized now for 5 minutes please.

STATEMENT OF JAMES P. MCGOFF

Mr. MCGOFF. Thank you, Chair Tonko, Ranking Member McKinley, Chair Pallone, Ranking Member Rodgers, and members of the subcommittee.

My name is Jim McGoff, and I am the Director of Environmental Program for the Indiana Finance Authority. I am testifying today on behalf of the Council of Infrastructure Financing Authorities, which represents the Clean Water and Drinking Water Revolving Funds.

I would like to begin my testimony by taking this opportunity to personally thank you and the other Members of Congress for trusting and empowering the State Drinking Water SRF Programs with the financial resources to make meaningful investments in our Nation's drinking water infrastructure.

I know the success of our programs is well documented and included in my written testimony. So I will get right to the purpose of this hearing.

I visit today with a simple request. Please consider expanding our ability to quickly and effectively deploy the historic funding in the bipartisan infrastructure bill. My comments will focus on the SRF's ability to utilize the funding for emerging contaminants and lead service line replacement in a way that achieves our shared goal of protecting the health of the American people.

I can confidently say the SRF Programs are experts in providing low-cost financial assistance for every community's drinking water needs. Congress was right to choose the SRF Programs when looking for the appropriate vehicle to address emerging contaminants and lead service line removal.

However, to be able to achieve the intent of the law, this targeted funding requires more flexible and innovative approach than the base program that we currently monitor. For example, firefighting foam. It is currently stored at every firefighting station and usually contains PFAS or PFOA.

We believe the intent of the legislation included the ability of States to inventory, collect, and properly dispose of these toxic chemicals.

My apologies of being from Indiana. I feel compelled to make at least one basketball analogy here. This is a layup.

Of course, we should be able to use this funding to eliminate that public health threat. However, because we would not be providing financial assistance directly to a drinking water utility, we have been informed that we are not permitted to use the emerging contaminant funding you have provided to address this critical problem.

Another example, PFAS and PFOA and other contaminants that would qualify as emerging can be found in our soils and other areas not associated with the drinking water utility. Again, the

SRF Programs cannot go into these urban neighborhoods desperately needing the financial assistance to address known and identified emerging contaminants with this funding unless they are somehow associated with a drinking water utility.

EPA has provided flexibility in the past, primarily within the Clean Water SRF Program, and however, we would hope with your urging and/or modifications to the bill, EPA would do the same with the Drinking Water SRF Program.

For example, an SRF Program has used its Clean Water SRF Funds to fund energy efficiency projects with EPA approval under the theory that energy efficient additions to homes would reduce energy use, which would reduce energy production, which would reduce stack emissions, which would reduce particulate matter leaving the stack and falling into a receiving stream.

Arguably, there is a greater threat of a container of firefighting foam failing and leaking in the basement of a firehouse or the more likely scenario of it being used and then flowing into a receiving stream or well, and that may be the town's only source of drinking water.

I will now turn my attention to our ability to address lead service lines. Federal law requires that we provide EPA with a list of projects we intend to fund before we can draw down the first dollar. So the funds you have made available to the States cannot be used unless and until we provide EPA with a list of projects that will be funded.

Therein lies the problem. Utilities in many States have not begun the process of developing an inventory of lead service lines. It would be logical to think we would be able to use these funds to generate a statewide inventory and then begin the process of removing the lead lines.

However, we are limited to only using a fraction of the funds for this purpose. Funds referred to as set-asides are generally reserved for program administrative expenses or State-specific initiatives maybe eligible, but in the aggregate would not be sufficient to adequately address the necessary inventories.

Logic suggests and we believe your intent would be that the lead service line funding be eligible for use in all things associated with the removal or at the very least the first and second year of funding be eligible for inventories, believing that once inventoried the later years' funding could be targeted for their removal.

We do not believe wholesale changes in the legislation are necessary. It is good legislation, but minor revisions are needed to ensure we can achieve its goals. Thank you.

[The prepared statement of Mr. McGoff follows:]



Trusting the Tap: Upgrading America's Drinking Water Infrastructure
Subcommittee on Environment and Climate Change
of the Committee on Energy and Commerce
U.S. House of Representatives
March 29, 2022

Testimony of
James P McGoff, Chief Operating Officer and Director of Environmental Programs
Indiana Finance Authority
On behalf of the Council of Infrastructure Financing Authorities (CIFA)

On behalf of the Drinking Water State Revolving Funds (SRFs), thank you for the opportunity to provide an update on the implementation of the Infrastructure Investment and Jobs Act. My name is Jim McGoff and I am Chief Operating Officer and Director of Environmental Programs for the Indiana Finance Authority. I am also President of the Council of Infrastructure Financing Authorities (CIFA), which represents the Clean Water and Drinking Water State Revolving Funds.

SRFs: Proven, Effective, Adaptable, Responsive

The Drinking Water SRFs are the nation's premier programs for funding water infrastructure that provides safe, reliable, and sustainable drinking water to communities across the nation. Since they were established more than two decades ago, Congress has provided \$24 billion in federal funding to capitalize the Drinking Water SRFs. Along with state funding, proceeds from bonds and loan repayments, the SRFs have been able to double that federal investment, providing more than \$48.5 billion in subsidized loans for more than 17,000 drinking water infrastructure projects.

While the majority of funding is used to build infrastructure, SRFs can also use a portion of their annual federal funding for other priorities, called set-asides. SRFs can use up to 2% of the capitalization grant for technical assistance for small systems, up to 10% of the capitalization grant for the state Public Water System Supervision Program, and up to 15% of the capitalization grant for state and local activities, such as initiatives to protect the source of drinking water or develop asset management plans for communities.

The SRFs are effective state-federal partnerships because states can customize their program, within a broad federal framework, to align and achieve state priorities and national goals for public health. The flexibility to tailor the delivery of federal funds is the hallmark of the program and allows the SRFs to be both responsive to needs of communities facing diverse challenges and adaptable to ever-changing conditions with their state.

SRF subsidized loans provide significant savings for investments in water infrastructure, which helps water utilities meet stringent water quality standards while maintaining more affordable user rates. In 2021, the average interest rate on a Drinking Water SRF loan was 1.07%, less than half of the current interest rate of 2.25% on the public finance market. On average, these below market rates save more than 50% in interest payments over the life of the loan or about \$1.3 million for every \$10 million in loans. The SRFs also provide additional subsidy in the form of principal forgiveness and grants for water systems that may not otherwise be able to pay for needed water infrastructure.

The SRFs serve water utilities of all sizes. In 2021, Ohio funded the smallest project in the country - \$8,868 to rehabilitate a drinking water tank in the village of Elmore serving a population of 1,400 – and Oklahoma funded the largest project - \$205 million for a multi-faceted project to develop a drought-resistant supply of water and reduce reliance on groundwater in the City of Enid serving a population of more than 100,000.

The majority of SRF subsidized loans – 71% – have been provided to small communities with populations under 10,000, with more than 50% of all loans provided to communities serving fewer than 3,300 people and 20% for communities smaller than 500 people. These small communities are less likely to qualify for financing on the public market and, if these small systems are able to secure public financing, they are more likely to pay a higher interest rate. Additionally, these small communities often lack the professional capacity to undertake capital improvement projects without significant support from the SRF program.

While the majority of loans are provided to small communities, the majority of funding – 56% – has been provided to communities with populations larger than 10,000, with 30% of all funding provided to water systems that serve populations of 100,000 or more. While these medium and large water systems can often qualify for financing on the bond market, the savings from SRF subsidized loans can be significant on larger projects. Additionally, these larger borrowers help the SRFs maintain a balanced portfolio, which in turn allows SRFs to maintain a AAA rating that reduces the cost of borrowing for leveraged programs, saving even more money for all borrowers.

A Pivotal Point for Achieving National Public Health Priorities

Thanks to your leadership, the bipartisan Infrastructure Investment and Jobs Act (H.R. 3684) offers an unprecedented opportunity to make a historic and transformational investment in our country's water infrastructure. Because of your commitment, America will be able to expand access to safe, reliable drinking water for millions of people across the nation.

While the law offers unprecedented opportunity, the SRFs are concerned about a significant potential for **missed opportunities**, particularly with the one-time-only special category funding for replacement of lead service lines and remediation of emerging contaminants with a focus on perfluoroalkyl and polyfluoroalkyl (PFAS/PFOA) substances.

Under federal law, the SRFs are required to deliver the majority of funding through individual assistance agreements to drinking water utilities for capital improvement projects. This approach is extremely efficient and effective for improving, rehabilitating and replacing aging water infrastructure.

However, delivering financial assistance to utilities, one-by-one, for assessments, inventories and remediation may not be the most efficient or effective strategy for achieving the goals of the special category funding – lead service line replacement under the Drinking Water SRF and remediation of emerging contaminants under the Clean Water and Drinking Water SRFs. Statewide problems may call for statewide solutions. Providing additional flexibility to the SRFs will ensure the goals of the legislation are achieved – more quickly, more efficiently and more cost-effectively.

Below are examples of statewide strategies that are limited or not permitted under the current federal law:

Statewide strategies for inventory of lead service lines and testing of emerging contaminants are limited. Under current law, 27% of the capitalization grant may be used for set-asides, including technical assistance and state and local programs, plus an additional 4% for administration of the program. While some of this funding may be used to fund inventories and testing, there are obstacles.

To access funding for set-asides, SRFs must provide the list of projects that will be funded. SRFs who don't have eligible construction projects are unable to access the set-aside funding to pay for inventories and testing. Without inventories and testing, SRFs will struggle to develop a project pipeline for construction projects that are required to be listed in order to receive the grant. More importantly, the allowable set-aside funding is inadequate for some SRFs to accomplish statewide inventories and testing.

Allowing states to contract directly for a statewide, regional, or small system inventory of lead service lines may be more efficient and cost-effective than entering into a separate agreement with each water utility to conduct surveys, particularly small, rural systems.

Statewide strategies to remediate PFAS / PFOA are limited or ineligible. Current law restricts the ability of SRFs to contract directly for prevention and remediation of emerging contaminants. For example, a state could choose to remove unused fire foam, a known source of PFAS, from every firehouse in their state, or excavate soil that has tested positive for the forever chemicals.

Allowing states to contract directly to remediate contamination before it gets into the drinking water supply may be more efficient and cost-effective than requiring water utilities to assume that responsibility. However, maintaining funding for treatment of drinking water and wastewater for emerging contaminants remains the priority.

Accelerating Replacement of Lead Service Lines

The Safe Drinking Water Act requires the Drinking Water State Revolving Funds to develop criteria to determine whether a drinking water utility, as a whole, can afford a water infrastructure project. Because the savings from subsidized loans are so significant, SRFs typically reserve additional subsidy for communities that couldn't otherwise afford to finance the project on their own, to address a serious threat to public health, or to incentivize projects, such as green infrastructure.

SRFs must be judicious with additional subsidy because every dollar used for principal forgiveness and grants permanently reduces funding for future water infrastructure. Subsidized loans, on the other hand, provide a permanent, recurring source of revenue to fund water infrastructure projects that may never be built if the SRFs were a traditional grant program. Thanks to the wisdom of Congress to establish the SRFs as subsidized loan programs, nearly \$24 billion in loan repayments will remain revolving in the program forever.

However, some types of projects, like full lead service line replacement, particularly replacement of pipes on private property, are much more difficult to finance with only subsidized loans. Limiting funding for additional subsidy to 49% and restricting that funding to disadvantaged communities may further complicate efforts. While some SRFs have been successful attracting applicants using a combination of subsidized loans and additional subsidy, other SRFs are facing difficulty attracting applicants for these labor-intensive projects without the offer of full additional subsidy.

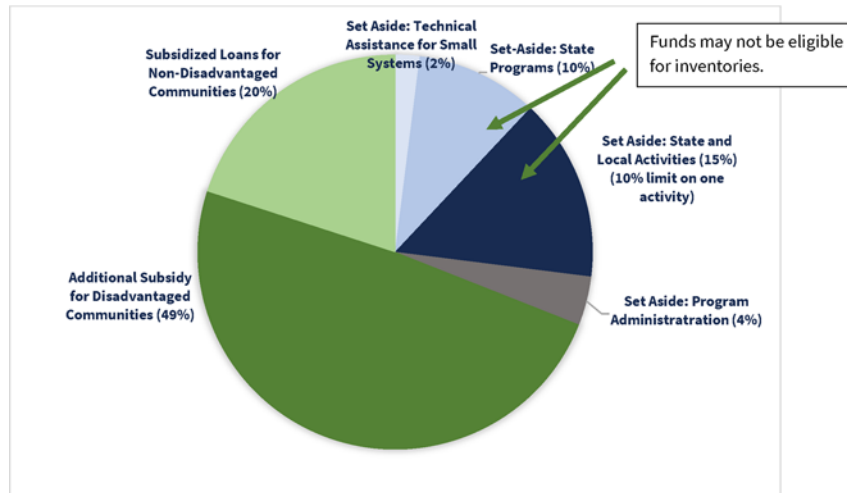
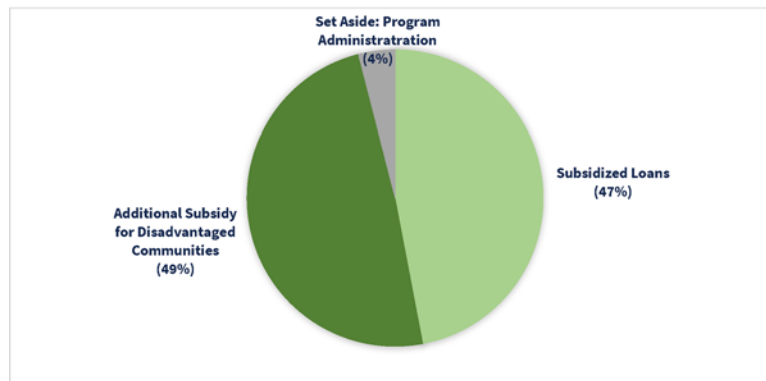
Recommendations

To help the SRFs achieve the goals set forth by Congress in the bipartisan infrastructure law, the SRF community asks for your help in modifying the law to provide more flexibility for the special category funding for lead service line replacement and remediation of emerging contaminants, specifically:

- Allow the SRFs to use up to 100% of the capitalization grant to contract directly for inventories of lead service lines, testing of emerging contaminants, and prevention and remediation of water contamination from emerging contaminants.
- Allow the SRFs to use up to 100% of the capitalization grant for additional subsidy (grants and principal forgiveness) for lead service line replacement to any drinking water utility eligible under the Drinking Water SRFs.

Thank You

On behalf of the Drinking Water State Revolving Funds, thank you again for your leadership for making federal investment in water infrastructure a national priority. Because of your unwavering commitment to federal funding and flexibility, communities across the nation can trust the water that comes out of their tap.

Capitalization Grant for a Drinking Water SRF that Uses All Available Set-Asides**Capitalization Grant for a Drinking Water SRF that Only Uses Administration Set-Aside**

Mr. TONKO. Mr. McGoff, thank you.

And thank you to all of our witnesses again for your participation here today.

That concludes your opening statements, and we now will move to member questions, and I will start by recognizing myself for 5 minutes.

Now, we often hear about water systems' needs in big numbers, \$472 billion often quoted as that needed for the next 20 years. Mr. Olson, can you please help us contextualize these needs?

What does it mean today for American families, for their health, for their pocketbooks that water systems require nearly half a trillion in investment?

Mr. OLSON. Thank you, Mr. Chairman.

I will say that that is even a lowball estimate according to the American Waterworks Association, which estimates it could be a trillion dollars.

I think what it means is there are so many communities around the country, as we have heard, where this is a buried asset. Most people do not know that they have problems with their drinking water until they do not have water if there is a water main break or they learn that they have lead contamination in their water or if they are in a rural community that they have serious contamination problems.

So what it means to communities across the country is if we do not invest in these problems, I said in my testimony it is a lot like a decades old car that has not had a brake job or oil change in years.

That is sort of what we are operating with in a lot of communities across the country is these water systems are starting to fall apart. They are not modernized. They are delivering in many cases water that is not up to snuff. It is especially true in lower income communities and in many rural communities that have real problems.

So what it means to Americans is many of us are getting water that is not safe. Many of us are getting water that should be better even if it meets standards, and these kinds of investments from the bipartisan deal will take us a long way toward helping to fix the problem.

Mr. TONKO. Thank you.

And, Ms. Mathieu, I looked up Connecticut's latest SRF intended use plan. For a relatively small State, there were a lot of proposed projects.

Can you discuss how far this new funding could go to addressing the State's infrastructure backlog?

Ms. MATHIEU. Excellent question. And thank you for looking up our intended use plan. I very much appreciate it. We are very proud of our SRF Program.

So in our little State, we have 2,400 public water systems, 2,400 in the little State of Connecticut. Two thousand of those are non-communities. There are about 725 that are formally eligible to apply for the SRFs.

We have not used one word in here, but which is really important: aging infrastructure. It is prevalent. Our treatment systems,

as Mr. Olson mentioned, a lot of our treatment plants need between 40 to \$60 million in replacement funding.

Many of even our larger municipal systems cannot afford that on their own. They need the subsidization. We have actually rebuilt a treatment plant at Groton, which serves about 80,000 people. They could not afford the \$55 million price.

We were able to pull together some State funding to help them with the affordability of that loan.

We have many small systems in our State. We have 3.6 million people. We have 148 really small towns, very rural towns.

Many small systems struggle. Many of you mentioned the small system struggle. Many of you mentioned the small system problem.

A small system to us in Connecticut is 25 people, literally 15 service connections. Affordability is a serious problem, even taking on a loan. That is why one of the comments that we made was let's make the process as simple as possible. Taking out a loan is incredibly difficult. Even if you gave them 80 percent subsidy, just to fill out the paperwork, so to make it simple and easy as possible.

We like one of the ideas that has come out through EPA, and I think through the President himself, this idea of technical hubs. We want in. In our State of Connecticut, we have asked our EPA Boston people and headquarters staff. We would like a technical hub for Connecticut. We have enough systems and enough problems. We want a focused effort.

We as regulators, we scare people when we show up. All right. Let's face it, right? Every time we show up, it is thousands of dollars because we are pointing out violations, as many violations that we identify.

So to bring in a technical expert under a technical hub idea that is funded directly by EPA to help, I would love to have that. Three to 400 systems, to sit down and help apply for an SRF loan; to help identify your lead service line inventories.

Many of them do not even understand how to put that together. So to provide direct technical assistance to the communities that need it the most in these three to 400 really small systems would be really very important to be able to spend that money.

Mr. TONKO. Well, thank you very much.

OK. We now recognize Mr. McKinley, subcommittee ranking member, for 5 minutes of questions, please.

Mr. MCKINLEY. Thank you, Mr. Chairman.

I tried to say in my opening remarks I believe there is a nexus between States that have low per capita income and the ranking with your infrastructure. Particularly, the example would be Mississippi and West Virginia.

So I want to keep that in consideration as we go with this.

Now, let me go to Mr. Olson. You made a comment about lead water pipes and identifying. I really want to give a shout-out to Clarksburg Water Department. What they did, they found out they had a problem, and they have been actively going after that. And they have replaced most of those now. And they are identifying the water lines, the lead pipes all throughout the district for that. So we are making a move on that.

Ms. Mathieu, you made an interesting remark. You said you are finding a shortage of engineers to do this. I would say to you we have got a shortage of engineers in Washington.

I am just one of two licensed engineers in Congress and think about it. Here we are dealing with a massive infrastructure bill, and as we say, there are two licensed engineers, but there are 242 attorneys.

So the question is who do we want addressing our infrastructure, and I will end up on that. We will go back.

But just last week I had a meeting with a water group, and they were telling me the lack of oversight. The concern they are having is the massive increase in water pipes and copper and fire hydrants and all.

As a matter of fact, what they showed me was because of this lack of oversight and this control that we have now put in, eight-inch PVC pipe, kind of the heartbeat of water systems, it has already increased our suppliers 210 percent over the last three years, 210 percent.

The same thing with six-inch; 157 percent increase. Fire hydrants, 30-some percent increase in just two years.

So I am hoping that we can develop some kind of oversight with this, our chairman and our committee, to be able to control this because our communities are not going to be able to meet the infrastructure if we are faced with this kind of supply cost that is facing us.

So let me go to two quick questions with Mr. McGoff, if I could with you.

States each have their own idea of what a disadvantaged community is and whether it is urban or rural, and so that both of these communities, both rural and urban communities, are on a level playing field.

How can we ensure that the population and needs are part of the equal consideration if we go ahead?

Need is huge for us in areas in West Virginia and Mississippi and others that are struggling now to do this. How can we do that?

How can we make sure that need is also included?

Mr. MCGOFF. Thank you for the question.

And the SRF Programs have been identifying and getting or targeting disadvantaged communities for years. So we are well equipped so each State has the ability and the flexibility to tailor their definitions of disadvantaged communities to fit their State need.

For example, in Indiana we have both urban and very rural communities. Many of the rural communities are very much like what you have described in some of the Southern States.

And so our disadvantaged community definition recognizes very low median household income, high user rates, and we target our grant funding that we have available or forgivable loan funding that we have available to those communities.

And the communities that can afford a standard interest rate, that is where we program those loans to.

Mr. MCKINLEY. Thank you.

Ms. Mathieu, last year and then prior to the infrastructure bill being passed, this committee had hearings on drinking water, but

primarily over leaking pipes and breaks. And according to the American Water Association when they testified, they said that we are probably losing 30 to 40 percent of all the water treated because of leaks and breaks.

So how will this legislation start to address that so that we can be more efficient in our systems?

Ms. MATHIEU. Thank you for question.

It is an important one when you lose 30 percent of your product that you spend a lot of money producing. It is a shame.

So aging infrastructure is a real problem. Water main replacement has always been a big part of the SRF Programs, and I hope that it will continue. Some of our water mains, if you see the water main that runs right on Capital Avenue on the city of Hartford, it is 100 years old.

And what is interesting is they say, well, we have got another 20 years on that pipe. It is good.

So we are in the northeastern part of the country. We have a lot of aging infrastructure. My colleague from New Jersey, the pipes are old, systems are old.

We need the investment, and I know that one thing in Connecticut, our intended use plan or last call for projects, we had over 120 project requests totaling over \$520 million in requests.

We believe on this most recent call for projects, we will have over \$800 million in requests for a little State of Connecticut.

We also have 12 lead service line removal projects totaling asking for over \$134 million. A 1-percent State like we are in Connecticut for the SRFs, we are receiving in the bill \$150 million over five years.

Mr. MCKINLEY. Thank you.

I have gone over my time. I yield back.

Mr. TONKO. That is fine. Engineers love that.

The gentleman yields back.

The Chair now recognizes Chairman Pallone of the full committee for 5 minutes to ask questions please.

Mr. PALLONE. Thank you, Chairman Tonko.

I wanted to start with Ms. Mathieu. We have talked a lot about the need to replace lead service lines, cleaning up PFAS, but all that can be very costly, right?

So in a City like Newark, you know, they struggled to get the funding, right? I mean they did between the State and the Federal Government.

So I just wanted to ask basically about resources, Ms. Mathieu. Is sustained and robust Federal investment like that provided by the BIF critical to helping water systems address these public health challenges or would we have just gotten the job done just as well using the incremental annual funding approach that we had until the bipartisan bill came along?

Ms. MATHIEU. That is a very good question. Thank you for that.

This infusion of funding will significantly invest in our cities in their aging infrastructure across the country, as well as helping the smallest systems that need the help the most.

In our most rural communities, they struggle just to pull water samples and to meet the timeframes of the Safe Drinking Water

Act. This funding will help them and these technical assistance helps in our increased ability at the State level.

We anticipate and are hopeful to hire additional engineers to get the work done. We would love those professional engineers to take our jobs. But we have a hard time bringing engineers on. For whatever reason, there does not seem to be many coming to the table.

But with this additional funding, it gives our State and other States across the country an incredible ability to change the way we have been investing in public health and drinking water.

Our aging infrastructure in our State alone, again, the needs are high, about \$800 million, we believe, and we know that we cannot afford that alone.

So my colleague had mentioned Mississippi. I know my colleague well, Bill Moody, in the State of Mississippi, and we just completed a nice week together during our member meeting, and he said, "Lori, you know, when we invest this money in these small systems and any system, we have to make sure those systems are resilient for the future."

We see this as an investment in the future, and again, we cannot thank you enough for this investment in our drinking water.

As Mr. Adeem said, these are not—I am going to say it—these are not the sexiest things, right, because they are all buried. People do not know. People do not see the pipes in the ground. People do not know about the work that you all do to supply drinking water every day all day.

They see the roads and the bridges. But to provide this level of money to safe drinking water and public health protection is tremendous, and we, again, we are thrilled with it and want to get the work started.

Mr. PALLONE. Well, thank you.

Let me go to Mr. Adeem. You talked, of course, about how there were a lot of jobs created and local jobs as a result of this major effort to replace all the service lines in Newark.

Just tell me a little more about the benefits to the community you have witnessed as your city invested in this effort to replace the lead service lines.

Mr. ADEEM. Thank you, Congressman Pallone, Chairman Pallone.

As we have seen in our community, the city of Newark, we engage our local residents into coming into an apprenticeship program with the local trade union. They had gotten an opportunity that they would never see, but we "never see" is always hard to get into a union skilled job. Unions always had these announcements. "We are hiring." You see them in the papers, and there is a long line where it could be as much as five to 10,000 people trying to get 20 positions.

In the city of Newark, because we knew we had an infrastructure project that was going to impact one local union, the Laborers Union for Local 472, we met with them early and with the State Department of Labor to make sure that we wanted to focus on putting Newark residents, right, those underprivileged residents that did not have the opportunity, men and women, Black and Brown, that may have not had an opportunity to be a part of the union, to get into the union.

Immediately, we have seen the impact because not only were we doing the lead service line replacement work in the community. Residents that actually lived in the community had the opportunity to replace their own lead service line.

So you are working on a job where you are replacing your own house, and the income that they received off those jobs, the middle-class salary, they were putting that money back into the community. They lived in the community. They were investing back into the community.

I was on a job site, me and one of my colleagues and a former reporter, one early in the morning, and we had the street blocked off, and we were helping a lady bring her groceries into her house because the street was blocked off.

And she saw her nephew out there. She said, "Leave those gentlemen alone. They are working. Get away from them."

And he says, "Auntie, I am working."

She said, "You are not working with them. Leave them alone. Get out of the way."

And he says, "No, I have been working. I went through the apprenticeship program, and I have been working for two months."

Just the smile on her face and his face to let his aunt know that he actually had a job, right, on a construction job, on a union scale job, and today that gentleman is working in Baltimore somewhere with one of the companies, Pinello Company, which is a New Jersey company, but it works around the Nation doing sewer replacement.

So that is one impact that we see.

Also it gives hope to the community. When we looked at small subcontractors, giving them the ability to bid or be a prime or a subcontractor on a government job, ushering the progress, not progress; ushering the steps and making the process easier for them to get in.

So we set up and made sure they had MBEs and WMEs to be a part of a project that they would never have thought that they would have had the opportunity to.

One night working with a construction company in the city of Newark, the valve blew off at the meter, and it damaged the hot water tank. We had a contractor that came to one of our community outreach meetings that was a four-person firm that did cleaning.

They were able to come in at eight o'clock at night and clean that basement up, clean the water up, sanitize the basement, you know, do restoration, and you know, this lady had a \$1,500 contractor come in and do restoration and cleanup with a small company, which led her later on to partner with another company.

Mr. TONKO. Mr. Adeem. The time has expired. Thank you. A great story. Thank you so much for sharing that.

The gentleman yields back.

Next, we will recognize the gentleman from Alabama.

Mr. Palmer, you are recognized for 5 minutes please.

Mr. PALMER. Thank you, Mr. Chairman.

I thank the witnesses for participating, and to the subcommittee for holding this hearing.

One of my concerns about what we are doing here is asking for funds, additional funds, when we just passed the Infrastructure Investment and Jobs Act. And I am just wondering, and I guess this would be particularly for you, Mr. Adeem, has the city of Newark received funds from that bill we just passed yet?

Mr. ADEEM. No, sir.

Mr. PALMER. Then why are we asking for more money when we have not even utilized the funds?

Are you telling me that we do not have enough money in the bill we just passed, the 1.2 trillion?

That is a yes or no.

Mr. ADEEM. No.

Mr. PALMER. OK. What concerns me about this, Mr. Chairman and the witnesses, is who is exercising oversight over this.

I understand that Mitch Landrieu, the former mayor of New Orleans, was named by the Biden administration as a coordinator, and I find that interesting considering the condition of infrastructure in New Orleans, particularly their roads and how sluggish or even inept they were in New Orleans in handling their infrastructure issues.

And I just wonder if the needs, and there are needs out there for replacing water systems, are going to be met in a timely manner and in a most economically, fiscally responsible manner.

Mr. McGoff, if you would like, you can respond to that.

Mr. MCGOFF. Yes, sir.

Mr. PALMER. Yes, sir what?

Mr. MCGOFF. The question to disburse the funds in a responsible manner.

Mr. PALMER. Yes. So you agree you have the same concerns about the dispersal of funds, that none of which have been disbursed yet and that the infrastructure that has been put in place by this administration for doing that, I think, raises some questions in my mind about how well this will be done and how quickly it will be done, considering that we have these needs and we have known about these needs for a long time.

And I see Ms. Mathieu nodding in agreement. Would you like to comment on that?

Ms. MATHIEU. Yes, thank you. It is a good question.

It is a lot of money to move fast and the SRF Programs have been around for 25 years under State oversight. That program in my State, which I have oversight of, has a lot of measures and metrics, and EPA I will guarantee you is on us constantly about a term known as ULO, unliquidated obligations.

They are on us also about pace of the program, and I suspect they will be adding five or six more metrics on us soon that will tell us how quickly we have to move this money.

The pressure to move the money is extensive. The timing of the lead and copper rule, the first phase, was really important to send the signal to our water industry that it is time to get moving, to get the lead out. That was an important move.

Mr. PALMER. Figuratively as well as literally.

Ms. MATHIEU. Right. Because we needed that signal because it sends a message that this is real. Now the money is there. We need to move quickly.

Am I concerned that the money will not move fast enough? Yes. Do we have the workforce to be able to move the money? That is a critical need. We need the engineers, the analysts, the financial analysts to be able to do this work.

And my colleagues at ASDWA across the country are working hard on staffing plans, and again, workforce is a concern when it comes to this funding.

But we are up to the task.

Mr. PALMER. Well, you should also be concerned about the permitting and other issues and how qualified the people are who are acting in coordination positions, particularly in respect to the ones who are overseeing the entire project and are in getting this done.

My big concern is with the inflation rate where it is right now, we are all talking about the price of a gallon of gas. We keep adding money to the money supply. We will be talking about the price of a gallon of milk.

So it bothers me that we are having this discussion about needing more money when we have not spent the money we have, and the longer you delay, the more costly the project becomes.

And like Mr. McKinley, I worked for two international engineering companies, and I understand a little bit about how long it takes to get things done and how you need to move through the permitting process, the design. All of that has to be done, and the longer we wait, the more expensive it is going to get.

So, Mr. Chairman, it might be that this committee considers exercising some additional oversight in regard to the administration and the handling of these funds.

With what, Mr. Chairman, thank you for your indulgence, and I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the representative from the State of Illinois. The gentlelady from Illinois, Representative Schakowsky, is recognized for 5 minutes please.

Ms. SCHAKOWSKY. Thank you so much, Mr. Chairman.

You know, over the last couple of years now we have been talking about lead in drinking water, in schools, throughout the State of Illinois, which happens to be No. 1 in the lead service lines.

And we are very, very concerned about this effect particularly on the health of children, the long-term, irreversible brain consequences that can happen.

And I know that in the bipartisan infrastructure bill, there is \$15 billion, although I do remember when the President was talking about \$45 billion, and I know that maybe yet we will still get something in legislation that passes.

And I know that all states are going to need funding to address this lead service line issue, but I am very concerned that Illinois, it seems, is disproportionately not getting the amount of money. I do not know if the numbers did not come through as our having such a huge problem.

I know that the Mayor of the city of Chicago is very concerned. We have had to turn off water faucets in so many of our schools right now because it is dangerous.

So I wanted to ask Mr. Olson. Does the current State Revolving Fund consider the need for lead service line replacements?

And is there a review of how States, individual States, are affected that could change the amount of funding that goes to States like Illinois?

Mr. OLSON. Thank you for the question. It is a very important one.

As you mentioned there are \$15 billion in the bipartisan infrastructure law that is supposed to be dedicated to replacing these lead pipes, and Congress did pass the America's Water Infrastructure Act in 2018 that says that each State and EPA are supposed to assess how many lead service lines they have and how much it is going to cost to replace.

The disconnect is that it is not clear that that assessment is going to be done in time to affect how the money is allocated at least for the next fiscal year. We are very concerned about that and urge EPA to set that money aside, that \$15 billion, and allocate it based on need and get that needs assessment done ASAP.

We are hearing it might not be done this year even though it was supposed to be done this year. So we are hoping EPA will expedite and allocate that money based on need. It is really important for Illinois and important for a lot of other States that are represented in this room.

New York has the same issue. Many other States have this issue.

Ms. SCHAKOWSKY. Yes, we are proud of being No. 1 in some important areas, but not in having the most lead surface lines.

Yes, I wanted to ask Mr. Diaz a question about your testimony. You stressed talking about jobs, and you were talking about some of the apprenticeship programs, actually pre-apprenticeship program that we need.

And I am wondering if you could discuss further how pre-apprenticeship programs could help build the trained workforce that we need for our clean water future.

Mr. DIAZ. Yes, thank you for that, Congresswoman, and that is a great question about how pre-apprenticeship programs—can you all hear me now?

Ms. SCHAKOWSKY. Yes.

Mr. DIAZ. Well, thank you, Congresswoman, about how pre-apprenticeship programs fit into the greater workforce development needs that we need to replace lead service lines.

You know, speaking with the Laborers Union in my hometown in Milwaukee, Wisconsin, you know, they mention that pre-apprenticeship programs, a/k/a apprenticeship program and pathways into apprenticeship programs are just so needed to fill the needs of operating engineers, laborers, and also plumbers that will be actually replacing these lead service lines.

I see that I am over time. So I will yield from my response. I can definitely followup with some more information for you, Congresswoman.

Ms. SCHAKOWSKY. I would like to hear that because I think the people that would be the most benefited, too, are those individuals who want good jobs, need good jobs, and need these pre-apprenticeship programs.

So thank you.

I yield back.

Mr. TONKO. The gentlelady yields back.

Before we recognize the gentleman from Ohio, Mr. Johnson, for 5 minutes, the ranker has asked to be recognized.

Mr. MCKINLEY. Mr. Chairman, during my testimony or questioning, I referenced the increased costs that are occurring in an infrastructure, particularly copper and PVC, waterline pipe.

I would like the record that was prepared by the Parker Utility Board on Friday of last week, that that be entered into the record.

Mr. TONKO. OK. All requests to enter materials into the record will be addressed at the end of the hearing. So we will take care of that.

Mr. MCKINLEY. Thank you, Mr. Chairman.

Mr. TONKO. OK. The gentleman from Ohio is now recognized, Mr. Johnson, for 5 minutes please.

Mr. JOHNSON. Well, thank you, Mr. Chairman.

You know, drinking water State Revolving Funds are a good example of an effective Federal-State partnership, and I know these funds have helped finance beneficial projects in all of our districts. This is a good thing.

But with the unprecedented huge infusion of cash from the recent infrastructure bill, it is important that we ensure proper oversight on where and for what these funds are now being used.

Mr. McGoff, I appreciate your mentioning Ohio in your testimony with a great example on how these funds can be used for a wide variety of small and large projects.

Looking at the 2022 project priority list in Ohio this year, in my district, the projects range from lead service line replacement in Guernsey County to a water tower replacement in Columbian County, all the way up to a major water treatment plant replacement in Washington County.

With projects like these, it is clear this program needs to remain flexible to address the safe drinking water needs of the extremely wide range of communities in rural Appalachian, Eastern and Southeastern Ohio, but at the same time, we do not want to just throw enormous, unaccountable amounts of money at these problems without being thoughtful.

Mr. McGoff, in your testimony you talked about missed opportunities, with the dangers of too much red tape in the form of special categories, and one-time-only funding streams with the example of lead service lines.

So to you, Mr. McGoff, when will we know where all the lead service lines are?

And what will it take in reality to replace all of these lead service lines?

Mr. MCGOFF. A very good question, Congressman Johnson.

And our testimony did target the need for assessment. There are some States that have the un-assessment. Newark, for an example of a city that has done a very good job of assessing their lead service lines, but for the most part, because the SRF Programs did not have the funding to direct toward assessment, many States are just getting started with that.

And we think it is very important to assess to make sure that we are targeting the appropriate lead service lines to have them removed, and to have the flexibility in the funding to do the assessment we think is a necessary first step.

Mr. JOHNSON. Well, obviously, replacing these lead service lines is an important thing to do. How important is it to appropriately set public expectations on this?

Mr. MCGOFF. Very important because it is a process. I mean, you need to identify, assess, and then you need to turn the work into contracts, and so it will take some time.

The lead service lines will not be removed in 2 years, 3 years, 5 years. It will take some time and appropriate planning, too. Utilities should plan to do the lead service line removal when other projects are taking place, like a water main in the middle of the street is the ideal time to replace the lead service line.

So proper planning is important to make sure the job is done right.

Mr. JOHNSON. OK. You mentioned the difficulty of using subsidized loans, that that may not be ideal for lead service line replacements on private property.

Is your organization concerned that State SRFs might not be able to use the funding given to them or that they might be tasked with programs where the costs well outweigh the benefits?

And if you agree with that statement, what would be a better way to do it?

Mr. MCGOFF. There is a concern because of the speed in which we need to deploy the funds. We are sitting here at now 18 months. We need to apply for the funding in the first year, and we have to identify how that funding will be used in order to apply for it.

So the speed is going to be quick, and communities, as is oftentimes the case, would prefer grant funding rather than loan funding. We in Indiana and many other States have been targeting lead service line replacement with loan funds. We have been trying to encourage cities and towns to take advantage of that, with zero percent loans, and we have been making some progress with that.

But with the speed at which we are being expected to deploy the funds, the more favorable that funding, the better off or the more ability we will be able to meet the timelines afforded us.

Mr. JOHNSON. All right. Thank you.

Mr. Chairman, I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes virtually Representative Sarbanes from the State of Maryland.

Welcome, sir, and you have 5 minutes please.

Mr. SARBANES. Mr. Chairman, thanks very much for today's hearing, and I want to thank you for your ongoing commitment to addressing the issue of drinking water infrastructure. You have made it a priority for many years.

In fact, you and I had the opportunity on your initiative to visit the Ashburton filtration plant in Baltimore a few years back, and I am grateful to the leadership that you have exercised in this arena. So I appreciate it.

Obviously, this is a topic that affects every American every single day. When you turn on the tap, you want to know that clean water is coming out, that your family is safe, and that is why these infrastructure investments are so absolutely critical.

We know that in communities where residents have a wide disparity of income levels, some residents can be perfectly satisfied

with the safety and reliability of their well-maintained water supply, while just a few blocks away their neighbors face a continuous struggle to access clean and safe water despite being part of the same larger water system.

This situation is very prominent, particularly in urban areas such as Baltimore, where low-income residents have for years faced issues like lead contamination. It is a real problem in our city.

And the Infrastructure Investment and Jobs Act will help address these problems by providing robust funding to the Clean Water State Revolving Fund, as we have discussed today, which provides these key low-interest loans to States for investments in water and sanitation infrastructure.

Approximately half, 49 percent, of this amount will be distributed in the form of grants or forgivable loans and will be invested in disadvantaged communities, as you know, these communities which have historically borne the brunt of substandard water infrastructure.

Mr. Adeem, in communities that have stratified income levels in a small geographic area, how important is it to ensure that water infrastructure resources like the SRF Program are available to the residents who need them most?

Mr. ADEEM. This is hugely important. We see this time and time again. You just spoke about Baltimore, but we see that these are communities, if they are not adequately addressed with their contaminants or funding to remediate a problem, it lasts for generations.

Mr. SARBANES. You know, by statute States are allowed to set their own definition for the disadvantaged communities that are eligible for the 49 percent of the SRF fund, and that offers some opportunity. That control over the definition can provide targeted assistance to areas that really need it.

And EPA has provided guidance to States to update those definitions for the purposes of allocating these funds.

Some States' current definitions of disadvantaged communities would omit urban communities like those I described earlier, where low-income neighborhoods are considered part of larger water systems that also contain more affluent neighborhoods.

And so on average, they would be deemed not to be in need of this water infrastructure support. So that is a challenge that we have to address.

Ms. Mathieu, in order to meet the required distribution of 49 percent of the SRF allocation going to disadvantaged communities, is it likely States are going to have to update or redefine which communities qualify as eligible for these funds?

Ms. MATHIEU. Yes, thank you for the question. It is an important one.

I can speak to our State, and in the offices today we are revising and looking at how we would revise the terminology to help the people that need it the most. To come up with a better definition of disadvantaged communities is important to us.

During the time of COVID, for the last two years, as a health department, many of us have worked on COVID related issues. I myself went out to a number of vaccine clinics and other things, and I helped out where I could.

But one thing that we found that was quite interesting is the terminology that the CDC utilizes. It is known as SVI, social vulnerability index. And this index is different than the way we have traditionally looked at distressed communities or defined them, you know, within the SRF Program.

So we are looking at the metric and all metrics, frankly, of environmental justice, the EJ definitions, the social vulnerability definitions, our disadvantaged and distressed community definitions, and we are looking to better define where we could help the people that need it the most.

So that work is ongoing, and from what I know of my colleagues in our association of ASDWA, is that every State is working on this right now to have a better definition.

Mr. SARBANES. Thank you very much. That is very helpful.

Mr. Chairman, I think this just shines a bright light on how we have got to make sure these definitions and other technical dimensions of how the money flows out and is invested are aligned with our intent, the purpose behind the infrastructure investment that we have made. I think we can accomplish that, and I appreciate your bringing attention to it in today's hearing.

Thanks very much. I yield back.

Mr. TONKO. I appreciate that assessment and could not agree more.

The gentleman yields back.

The Chair now recognizes the gentleman from Georgia. Oh, I am sorry. I now recognize the gentleman from Utah, Mr. Curtis, for 5 minutes please.

Mr. CURTIS. Thank you, Mr. Chairman, Mr. Ranking Member.

I would like to bring up a point I have not heard discussed today, and I do it carefully because I do not want to imply that there are not serious needs that need to be addressed, particularly among those who can least afford to pay for it.

But as I view the situation, during the 20th century, Federal grants and public works programs largely built out today's water infrastructure, and in my view this Federal subsidization and other political choices have led to artificially low water rates and water consumption.

Now, Utah is in the State's longest drought, and we are struggling to get people motivated to conserve water, and we talk about water as if it is free. Like it is an analogy, right, as compared to water if it is free.

I was a former mayor and dealt with an aging water system in my city, and I worry that a lot of our efforts to support cities are well intentioned but actually make infrastructure worse in the long run, like creating a backward incentive for cities to wait for Federal funding instead of being proactive.

Mr. Olson, you referred to a decade old automobile, and it made me think about my children. If I had given them a car and they did not change the oil and they did not do any maintenance on it, would I give them a new car when that car was worn out or would I give them a lecture about maintaining the car?

And I am just worried that our cities were set up in a situation that actually incentivized bad behavior and those who did invest in

infrastructure as a city or a municipality or State are probably less likely to get help from us now because their needs are less.

Mr. McGoff, is it possible that too much Federal subsidization of local infrastructure has created a city where municipalities, counties, and States have not been building the cost of maintenance into water rates?

And Ms. Mathieu talked about how expensive this is, but it becomes less expensive if we look at this over decades and decades of water users contributing to the cost.

Mr. McGoff, could you comment on that?

Mr. MCGOFF. Certainly. Thank you, Congressman.

Many States, Indiana included, are now requiring asset management plans be part of the finance packages that they receive.

So recognizing your comments, we wanted to make sure that we are good stewards of Federal resources, and we now do require utilities and many States are starting to adopt the same philosophy that utilities do manage their assets appropriately.

And through the Safe Drinking Water Act there is the subject of technical managerial requirements that are associated with managing a utility, and we certainly look at those as we are closing financing with those communities.

Mr. CURTIS. Thank you.

Thomas Payne said what we obtain too cheap we esteem too lightly, and I think that applies to water users as well as communities who did not pay, right, for their systems.

Mr. McGoff, nearly half of the supplemental funding in this program in the Infrastructure Investment and Jobs Act is directed to principal forgiveness or grants in contrast to subsidized loans, the traditional instrument of the SRF Programs.

How big of a change is this?

And are there any concerns you might have of this becoming a more permanent aspect of the programs?

Mr. MCGOFF. Because the base program is still being funded and the supplemental funding for the base program is continuing, the additional subsidization we are looking at is in addition to, and it is a 5-year window to target those most in need.

So we do not see this as being a long-term concern. Certainly we are believers in a loan program that recycles loans in and back out to communities as long as the base program continues, as we did with ARRA. We can adjust and be good stewards of this specialized funding, if you will, to target in this instance lead service line and emerging contaminants.

Mr. CURTIS. Thank you.

Let me come back to something that was touched on earlier that I want to go back to, and that is this concept of homeowners. I believe most circumstances, certainly when I was mayor, the homeowner owns the pipes from their home out into the street.

Are we giving adequate consideration to homeowners who rarely have the funds, right, to replace those pipes?

And what are we overlooking, if anything, here, and what should we be talking about in the case of homeowners?

It does not matter if all of the pipes are perfect up to their home if it is lead from there into their taps.

Mr. MCGOFF. And that would be the consideration for having additional subsidization not just targeted disadvantaged community, but if additional funds in the lead service line replacement were available for additional subsidization or for grant funding, then those homeowners—

Mr. CURTIS. We are going to get cutoff from the Chairman here. I see him reaching for his mouse.

So let me just conclude by saying I think in addition to that even though they can afford it, they rarely know that they have the problem or how to do it, and certainly we need to be looking at an educational component as well.

Thank you, Mr. Chairman. I yield my time.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentlelady from New York, Brooklyn. We have Representative Yvette Clarke. You are given 5 minutes to ask questions please.

Ms. CLARKE. Thank you very much, Mr. Chairman. I thank our ranking member, Mr. McKinley, for convening us today for this important hearing.

And let me thank our witnesses for your testimony.

Access to clean drinking water is a basic human right. I think this is something that at least most of my colleagues can agree to, and yet here we are in the year 2022, and the right is still not a reality for too many folks in our Nation, particularly when we look at lower income communities, communities of color, and rural communities.

This is a major injustice not only because nobody should have to worry about whether their drinking water is safe, but because we also have the technology to modernize our infrastructure and guarantee clean water for each and every American.

If we have the ability to do the right thing, then we also have the responsibility to do the right thing. This is why I was proud to cast my vote in favor of the Infrastructure Investment and Jobs Act, which makes the largest down payment on clean drinking water in our Nation's history.

One of the key beneficiaries of these investments will be children, and up to 400,000 schools and childcare facilities who have risk of exposure to lead service lines.

Mr. Olson, can you briefly speak toward why lead contamination in drinking water is so acutely dangerous to children and why it is critical that we address this contamination at schools and daycare locations?

Mr. OLSON. Thank you for the question, Congresswoman.

Schools and daycare centers are an underrecognized source of lead exposure. Certainly drinking water is one. Also paint is something we should talk about separately.

But we actually looked at the data in New York State, which was collected. New York is one of the few States that required pretty comprehensive testing schools, and they found over 80 percent of the schools statewide had lead levels that in at least one of their faucets or fountains that exceeded New York State's then existing action level.

So that is a lot of schools, a lot of kids drinking a lot of this water that is lead contaminated, and it can have lifelong impacts.

The problem with lead, as we all know, is there is no safe level, and a little bit of lead can cause harm for the child's entire life, learning disabilities, lower ability to earn money, and a lot of irreversible health impacts.

Ms. CLARKE. Very well. This issue is extremely concerning to me, and that is why my Safe School Drinking Water Act included in the House-passed bill, Build Back Better Act, would support the installation of filtered water fountains at children and childcare programs across the Nation, with a focus on underserved school systems.

These water stations will take advantage of the latest filtration technology capable of removing lead from drinking water.

Mr. Olson, do you agree that this program would be an additional important step in protecting children from contaminated drinking water at schools?

Mr. OLSON. This is absolutely a crucial program. It is something that needs additional funding, however. I know the reconciliation bill that this body passed would include additional funding that can be applied to that, but it has been a really under resourced issue and something that we would really like to see major investment to address in schools.

And I will just point out one thing, which is those filters, your approach of filtering, it is much less expensive than ripping out all of the plumbing in the school building, and it is more efficient because it will immediately provide safe drinking water to the kids.

So we strongly support that approach.

Ms. CLARKE. Wonderful. Thank you.

Last, I want to turn to the existential threat of climate change. As we have seen in Brooklyn with Hurricane Ida and Super Storm Sandy, one of the major climate impacts we are now having to deal with is more frequent and powerful storms that wreak havoc on our infrastructure.

That is why the infrastructure law established two new EPA programs on water system resilience and sustainability.

Mr. Adeem, can you speak to why this Federal support is so crucial to cities as they upgrade water infrastructure to deal with the realities of climate change?

Mr. ADEEM. Thank you, Congresswoman. A crucial question.

Yes, just looking at the last storm and I would say Hurricane Ida, living in a large urban City like Newark, one of the oldest cities in the country, aged infrastructure cannot sustain the capacity of these frequent rain events, seven inches of water over a 2-hour period. There is nowhere for it to go in large urban cities versus rural areas where water can recede.

Ms. CLARKE. Ms. Mathieu, is there anything you would like to add?

Ms. MATHIEU. Yes, thank you.

An excellent point. Storm Sandy taught us a lot in our little State. It hit us really pretty hard, as well as New York and New Jersey.

So one of the things that we have recently started is a Climate and Public Health Office. We applied for the BRACE Grant under CDC, and we are now proud to say in Connecticut that we are a BRACE State finally.

So we want to focus on the people that are harmed the most. We find that, again, it is the same people that are harmed in disadvantaged communities that are exposed to heat islands, heat stress, and other issues.

And we are very pleased to get that work started, but we have to scramble to put the funding together to start to focus on climate change and public health because there are a lot of impacts that we are seeing, and we are going to work really very hard on that.

Air quality is really very important and so is water.

Ms. CLARKE. Well, my time has expired, Ms. Mathieu.

Ms. MATHIEU. I am sorry.

Ms. CLARKE. Thank you so much.

And I yield back, Mr. Chairman.

Ms. MATHIEU. Sorry, sir.

Mr. TONKO. Sorry about that.

The gentlelady yields back.

The Chair now recognizes the gentleman from Georgia. Representative Carter, you are recognized for 5 minutes please.

Mr. CARTER. Thank you, Mr. Chairman.

And thank all of you for being here and for indulging in this.

Mr. McGoff, I want to start with you, and I want to discuss the very small and rural water systems.

I am from Georgia. There are two Georgians. There is Atlanta, and there is everywhere else, and I represent everywhere else.

So I am talking about the small towns. A lot of my district in South Georgia is small towns, and as we discussed all during this hearing, that brings with it unique water challenges.

In fact, I had a small town of 300 people just two months ago that inquired about how they could get some funds to drill a well. They need help.

As I mentioned earlier, I was a mayor at one time, and these towns, especially these small towns, they do not have this expertise that they need.

How do you think, Mr. McGoff, that States can help assist these communities that have never used the SRFs?

And how can they use their expertise to assist?

Mr. MCGOFF. Thank you, Congressman.

And we do recognize that. I spend quite a bit of my time in small towns personally visiting with the small-town officials to try to educate them on our process.

Many States have professionals whether it be engineering professionals, finance professionals and/or the Alliance for Rural Water, RCAP, some other agencies. Many of the SRF Programs regularly engage with those professionals as well as the agencies to inform them of the resources that we can make available to small communities.

And so I think each State has the ability to tailor our financial resources to where their needs are within those particular States, and from my experience, the small communities are being heard and being served in multiple ways.

Mr. CARTER. Do you think States need more flexibility in order to help these communities?

Mr. MCGOFF. The current flexibility we have works. It is the unknown. I know that the substantial guidance that was received

from EPA suggests, pays a lot of attention to disadvantaged community and defining disadvantaged communities.

So in the past the SRF Programs, I think, have proven their ability to provide funding to get it out the door to the appropriate places, and as long as we can continue to do what we have done in the past, we feel confident that we will be able to take care of it.

Mr. CARTER. Well, let me ask you something. In your testimony, you highlighted how statewide strategies for inventory in lead service lines and testing for contaminants is limited.

What are other challenges aside from just funding that we need to work on with lead service line replacement projects?

Mr. MCGOFF. Because the lead service line replacement specifically and the emergent contaminants are new for the SRF Programs, they are not currently in our or on our fundable ranges or in our project priority list, and in order for us to access funding through EPA, we need to get them on those lists. So that's the target for those.

And in the past or in ARRA for traditional wastewater/drinking water projects, we already had fundable lists that included those types of projects.

So there will be a bit of a challenge with these new targets, if you will. The greater flexibility we have from EPA to identify those, get them on our project priority list, submit them for funding would be helpful.

Mr. CARTER. Let's just say we are successful, wildly successful in getting these lead lines removed and replaced with non-lead ones. Are we done with the issue or is there more?

Mr. MCGOFF. With respect to the lead issue and for the service lines going into the home—

Mr. CARTER. I was about to say that, you know, that is still a problem, right?

Mr. MCGOFF. The removal of lines into the homes, I guess, after the Prentice Plumbing, we would not be aware of what is actually happening inside the premise, but the filters and other things could address it.

Mr. CARTER. Well, we cannot simply ignore it. I mean, any suggestion?

Mr. MCGOFF. I think through the assessment we will come up with some of those suggestions because as we assess, we will build a knowledge base of what is needed to take care of the problem.

And so I think, as we have testified, the assessment is a very important starting point for us.

Mr. CARTER. OK. Just one last thing. Are there any other areas that Congress should be watching during the implementation? Because they may need some statutory corrections. Anything else that you know of that we need to be aware of we might be working on with this?

Mr. MCGOFF. Apart from what has already been mentioned in my testimony, I think that is what we find to be of most importance especially since time is short for the SRF Programs to make application for this funding, being 18 months is all we have to work with at this point in time.

Mr. CARTER. Look. I know it is run through the State. I know all too well because, as I mentioned, I was a mayor for eight years, and our city quadrupled in size during those eight years.

We would not have been able to do it had it not been for having water and sewer available, and safe water was important. We used the SRF loans, and we depended on the State, and it helped us tremendously.

So I hope everyone here realizes, and on the committee, that this is extremely important to these small communities and these growing communities.

Thank you, Mr. Chairman. I will yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes virtually the Representative from California. Representative Barragán, you are recognized for 5 minutes please.

Ms. BARRAGÁN. Thank you, Chairman Tonko, for holding this important hearing on the importance of upgrading America's drinking water infrastructure and how the infrastructure law that President Biden and Democrats bought will help.

Mr. Olson, the investment in the infrastructure law to clean up PFAS is long overdue. In my district, Southgate, a majority Latino community needs funding to remediate water treatment systems to address PFAS contamination.

However, for communities with limited resources, accessing Federal water infrastructure funds can be difficult because they are often given out through loans from a State Revolving Fund and must be paid back.

How important is it for the EPA and States to focus on steering the infrastructure's law, set aside funding for grants or for forgivable loans to disadvantaged communities?

Mr. OLSON. It is a great question, and it is something that is absolutely crucial is to make sure that the money that is set aside in the new bipartisan infrastructure law will go to those communities that need it most in the form of either grants or forgivable loans.

And the good news is that about half of that State revolving fund money is going to go to those disadvantaged communities through those kinds of provisions, and also there is specific direction for the PFAS money also that needs to go to those disadvantaged communities.

So I think things like you are describing really should be able to get that money. The problem is going to be helping them apply for the money, getting them the information, the engineering help, as Mr. McKinley was talking about, to actually hold together a good, strong application.

A lot of these communities just do not even have the resources to apply for the money in the first place. So that is going to be key, is getting the technical assistance from the States and from EPA to those disadvantaged communities to help them apply and get the money.

Ms. BARRAGÁN. Director Adeem, following up on that question, to meet the goals of Justice 40, what additional steps should the EPA and States take to reduce any unnecessary impediments to dis-

advantaged communities receiving water infrastructure funds and technical assistance needed to pursue them?

Mr. ADEEM. Excellent question, Congresswoman.

I think the States should be more aggressive in meeting with those disadvantaged and environmental injustice communities and overburdened communities, rural communities, just having dialog with them to know up front what they are looking for, what their needs and the resources that the State Revolving Loan Funds can provide, that technical assistance, that engineering assistance that sometimes exists but may be limited, but to let those systems know that is available.

Ms. BARRAGÁN. Thank you.

Mr. ADEEM. It would be a huge step to moving those programs forward.

Ms. BARRAGÁN. Thank you, sir.

Mr. OLSON, as you highlight in your testimony, addressing underinvestment in our water infrastructure is only part of the challenge. We also need to strengthen the Safe Drinking Water Act and set pollution control standards on water polluters.

Why is this so important for clean water, and what are the key steps that Congress and the Administration can take?

Mr. OLSON. Well, thank you for the question.

One key issue is that the Safe Drinking Water Act, frankly, is broken, and I am hoping the committee will spend some time looking into that. It has been a problem for years. EPA has not been able to adopt new standards for things like PFAS that we have known about for years.

So that is one issue. In addition, I think a key problem has been that with this underinvestment, EPA has been reluctant to adopt rigorous standards for some of the contaminants, and I am hoping that that starts to change.

We really need to fix the law and to make sure that we are making the kind of investments that are actually going to make it possible for this to happen.

Ms. BARRAGÁN. Well, thank you.

We certainly are taking your suggestions on what we can do to fix it.

Director Adeem, my last question is for you.

In Newark, your city council passed a law to give your department the authority to go into private rental properties without the owners' consent to replace lead services lines.

Why was this property access important to your work in disadvantaged communities and what actions the EPA and States can take to support rental property access in order to meet the administration's Justice 40 goals for the lead service line replacement?

Mr. ADEEM. Thank you, again, Congresswoman, for this most important—

Ms. BARRAGÁN. This is about property access.

Mr. ADEEM [continuing]. For this important question.

And in the city of Newark, as we have made known, the city of Newark is a city of over 315,000 residents. Seventy-four percent of those residents are renters. They do not own their own home, and tenants that live in those properties there are always onboard to getting their lead service line replaced.

But the owners can be a financial institution, an LLC that does not have an interest in replacing the lead service line.

So part of us reducing exposure to lead, we thought the ordinance played a huge role in making our program effective and efficient and save money and time by letting us go by a block-by-block approach and just have anyone give us right of entry to a home we are replacing that service line, allowed us to replace over 23,000 lead service lines today.

So that legislation will be a crucial move forward for any utility that is looking to replace lead service lines.

Ms. BARRAGÁN. Thank you.

With that, Mr. Chair, I yield back.

Mr. TONKO. The gentlelady yields back.

The Chair now recognizes the gentlelady from the State of Washington and also the ranking member of the full committee, Representative Rodgers. You are recognized for 5 minutes please.

Mrs. RODGERS. Thank you, Mr. Chairman.

Thank you, everyone, for being here.

Ms. Mathieu and Mr. McGoff, your testimony discusses small rural cities and towns and States that the Association of State Drinking Water Administrators has consistently highlighted because small communities can be equally disadvantaged.

Why is it important for versatility and flexibility in defining and meeting these small and rural communities' needs?

Ms. MATHIEU. As I think it has been stated here before, small communities struggle. A small system can be a system of, say, 41 homes.

I recently met with a new owner. Many of these systems are owned or controlled by a homeowner's association. They are a group of volunteers that have full-time jobs or maybe two jobs, and they get together on a weekly basis trying to manage a water system.

So as you can imagine, that is difficult to do, and I recently met with one in the small town of Lebanon, 41 homes, a new person who took on all of this responsibility herself. She is a young mother with four kids, just had COVID, but wanted to meet with us.

So we met with her in the town hall with the town's First Selectman, and we talked it through for a couple of hours, the needs that she has.

A lot of it is financial. The rates have not been raised in years, maybe decades. Full cost pricing, as I think one of the gentlemen was getting at, really is not there for the smaller system. They have not raised the rates.

So we in our State two years ago, we passed the law requiring small systems that serve under 1,000 people to produce an asset and physical management plan. Keep it simple, draft a plan, know what you have, know how old your infrastructure is, know what your rates need to be.

She in this small, small system has now started to step up the rates. She has worked with her community. She has communicated with her community, and they are all in agreement.

It is not easy. Then for her now to take on a loan for the SRF, that is another step, and we are going to work really very hard to get our engineers and our analysts to meet, you know, as Mr.

Adeem had said. Get out into the community and sit down and meet with them. And talk with them directly. It is really important.

Mrs. RODGERS. Thank you.

Mr. ADEEM. And thank you, Congresswoman.

And I agree. It sounds like we spent the same time in these small towns, having similar conversations.

The beauty of the SRF Programs is in their flexibility. Each State can tailor their programs to address the needs of their State and to meet both urban, large environment or utilities, as well as small towns and small utilities.

So I think that is the hallmark of the SRF Programs, is in the flexibility.

Mrs. RODGERS. OK. As a followup, your testimony focused on ensuring Infrastructure Improvement and Jobs Act funding is efficient, effective, and streamlined to lower the paperwork burden on the stakeholders. I think that that is a great idea.

I notice that your testimony also calls out challenges and barriers faced by communities, many without expertise in navigating requirements like Buy America, Build America, and Federal prevailing wage requirements.

Why do you call out for the development of waivers for these requirements in limited circumstances?

And what did your officials learn from the use of waivers to some of the requirements in the 2009 American Recovery and Reinvestment Act?

Mr. MCGOFF. The smaller towns, smaller utilities are the least equipped to deal with red tape, if you will. They need additional resources and/or professional assistance.

We in Indiana hired labor standards administrators for those utilities to take care of that red tape, and it did come at an expense. Thousands of dollars were spent to provide that service for the small communities.

So it can be done. It just takes additional resources and certainly hand-holding to get those communities through the process.

Mrs. RODGERS. Well, and I will let you answer also.

Ms. MATHIEU. I would say the same.

Mrs. RODGERS. I would love to hear what are some of the specific challenges to Buy America, Build America?

Because I think we all are anxious to see that happen, but what is the reality on the grounds?

Ms. MATHIEU. Added costs, affordability of the loan. A small system like the one I just described.

Mrs. RODGERS. Can you give me some insights as to what we are facing?

Ms. MATHIEU. I do not have the details. Maybe——

Mr. MCGOFF. Uncertainty. It takes States some time to get up to speed on new requirements and then educate our borrowers and the professionals.

Mrs. RODGERS. Do we have the supplies in America that you would need?

Mr. MCGOFF. Well, that is uncertain. If it can be implemented along the lines of AIS, then we understand AIS, but if it throws additional requirements to us, that is where the uncertainty is.

Mrs. RODGERS. OK. Thank you all for being here.

I yield back.

Mr. TONKO. The gentlewoman yields back.

The Chair now recognizes the gentleman from Virginia, Representative McEachin. You are recognized for 5 minutes, and thank you for joining us virtually.

Mr. MCEACHIN. Thank you, Mr. Chairman, and I appreciate the opportunity to participate in today's hearing.

The bipartisan infrastructure law will provide approximately \$30 billion in investment over the next five years to improve our Nation's water infrastructure.

Additionally, the Justice 40 Initiative should ensure the funds are accessible to small and disadvantaged communities to ease efforts in replacing lead service lines and addressing emerging contaminants like PFAS.

This hearing today is critical. As money begins to flow to States and localities, we must ensure that in the implementation of new funds that we decrease the pollution burden on low-income Americans and communities of color because all Americans deserve access to clean water regardless of race or income.

Mr. Adeem, first of all, I want to salute you and the city of Newark for replacing all of your city's 23,000 lead service lines in three years. Particularly I appreciate this was done with no cost to residents, as low-income renters are some of the most vulnerable populations.

In order to provide lead service replacement to renters in the city of Newark, the city asked your State legislature to allow the use of public funds on private property. I know you have spoken of this somewhat in terms of Ms. Barragán's question, but are there other challenges that came with lead service lines and replacements on private property that you were not able to discuss with Ms. Barragán?

Mr. ADEEM. Yes. Thank you for your question. Thank you, Congressman.

In the city of Newark, there is legislation around you cannot use public money on private property because you may be doing an improvement to that property which would create some type of assessment.

In the city of Newark, we have also found out that when you start putting a price on replacing lead service lines, it is an opt-in program. Many homeowners that own their home or a company that does not live in the city there on the property, does not participate in removing lead service lines.

So having legislation in place that you will not provide an assessment on someone that cannot afford it anyway helps us expedite the replacement efficiently and effectively.

Mr. MCEACHIN. Thank you, Mr. Adeem.

Mr. Diaz, let me ask you. As you know, the EPA is currently working to propose rules on PFAS pollution by 2023. What rules would you like to see proposed on PFAS contamination?

Mr. DIAZ. Thank you for the question, Congressman McEachin.

I would say that those kinds of suggestions are out of my wheelhouse, but I would like to add that, you know, as you know, lead is not the only public health concern, and contaminated water ex-

poses communities to harmful chemicals like PFAS and also arsenic.

And you know, more than 27 million Americans get their water from systems that violate health standards, and again, low-income communities and communities of color are disproportionately impacted by this contaminated water.

The money in the bipartisan infrastructure law is a \$10 billion down payment on the cleanup of PFAS and urgent contaminants, but continued investment will be needed, as well as further research.

Thank you.

Mr. MCEACHIN. Thank you.

Let me open that question up to Mr. Olson or Ms. Mathieu, if I did not pronounce your name too badly. Are there particular rules that you would like to see proposed by EPA concerning PFAS contamination, either one of you?

Mr. OLSON. Yes, I will start briefly. Thank you for the question. It is crucial.

We would like to see EPA actually regulate the class of PFAS. They are proposing to just regulate two out of 9,000 PFAS. So we know PFOA and PFOS are two that should be regulated, and EPA is moving on that.

But they are short of like shark's teeth, right? I mean you have got two of them that we are going to regulate, but you have got thousands of them literally behind those two that are being regulated. If we do not deal with the whole class, we are never going to get this problem under control.

And what we have seen in State after State, city after city is that we are not just seeing one or two PFAS. We are seeing a whole lot of different PFAS in a complex toxic mixture that people are being exposed to.

So we need to crack down on the whole class.

Ms. MATHIEU. And I would add to that, to Mr. Olson's point, I would wholeheartedly agree that we are happy to see that EPA is moving in the direction of setting hopefully maximum contaminant levels for OA and OS, but in our State we are seeing prevalence of many more.

And once we start testing, you will find it. And the unfortunate thing is you might find it in school drinking water because of septic fields and other things.

So I would agree that, No. 1, if I had, you know, things that we could ask of EPA to continue to move forward with at least OA and OS and move that along as quickly as possible, you know, reviewing all the science and the data, but also help us where we need the help the most with all of these other contaminants.

To get a better handle on that is incredibly important as we find them more and more in our State.

Mr. MCEACHIN. Thank you so much.

I have run out of time, and I yield back.

Mr. TONKO. The gentleman yields back. The Chair now recognizes the gentleman from Texas, Mr. Crenshaw, for 5 minutes please.

Mr. CRENSHAW. Thank you. Thank you to the Chair. Thank you to the ranking member, and thank you to all of the witnesses for coming today on this important hearing.

Look. I think even in the most limited government, conservatives do think that the government has a role in keeping everyday Americans safe and with safe drinking water.

And there are communities in my district, for instance, like Tamina, that do not have clean water. My office is dedicated to helping that community get the water that it needs.

But along that same theme, there is a key component in keeping drinking water safe, which is chlorine, and last year there was a brief supply disruption in the production of chlorine that resulted in several communities sporadically losing access to chlorine products and requiring an abundance of boiled water notices across the United States.

Administrator Regan was so concerned about the communities losing access to chlorine that he actually sent an urgent letter to the chlorine manufacturers, reminding them that chlorine is used in the overwhelming majority of water systems and that they need to prioritize getting those shipments out the door.

I will submit this letter for the record.

But that same EPA also advocated so strongly against the processes that create chlorine in the first place. Support chlorine but just not how to make it.

There are only two ways of making chlorine. One uses asbestos and one uses PFAS. EPA is working on a draft rule that bans asbestos, and this committee has worked on a plan. We have passed it out of this Congress to effectively ban PFAS or at least create such extreme liability for producing it that many companies will simply choose not to do it.

Mr. Adeem, you have got a water system. You use chlorine, do you not? And what do you make of this? What do you make of this?

Mr. ADEEM. Thank you, Congressman.

Chlorine is crucial to our treatment process to provide safe drinking water. It is a disinfectant that is widely used across the country to disinfect water.

We did see last year some of the manufacturers were having delays in processing and shipping chlorine, especially early, the first quarter of 2021, around that.

Mr. CRENSHAW. And can you import cheaper chlorine from abroad?

Mr. ADEEM. I am not sure. I never looked into that.

Mr. CRENSHAW. The answer is no. You are not allowed to import chlorine.

So you would have to buy it locally, and if there is a scarcity or if it just becomes prohibitively expensive because we crack down on the processes to make it, what do we do?

It is a rhetorical question. I do not think you know the answer.

The point I am making is it is a problem, and we cannot regulate in silos. We have to regulate with the entire picture in mind, and I think some of these pursuits have been reckless or shortsighted.

It is also worth noting that chloring is not just a disinfectant for water systems. It is a foundational chemical for fertilizer and medi-

cine as well. It always feels good to ban chemicals that you do not understand, but the question is will it do any good.

No. You are monitoring often about feelings, not facts. In this case, you could have serious consequences. Health care will be more expensive. Food will be more expensive. Water will be more expensive. That is what happens when you create scarcity via excessive government regulations: increased cost.

And so I ask the committee today with inflation being the No. 1 problem facing everyday Americans, do we do away with this shortsighted crusade to effectively ban the very chemicals that we need the most?

I still have some time left, and so, Mr. Olson, you were just talking about the need to crack down on PFAS chemicals. How do we do that without having the second and third order consequences that I just mentioned?

Those are very real consequences. We talked to the industries that make these chemicals that we absolutely need. So how do we thread the needle?

Mr. OLSON. Well, I was speaking to the need to make sure that they are not in the drinking water, to filter it out of the drinking water before people drink it.

But I think there is a need to go toward reasonable controls on PFAS production, and the vast majority of PFAS can be replaced with other compounds.

So firefighting foam is one example where it is in widespread use, and now all over the world a lot of airports, for example, are phasing out or have phased out PFAS-based firefighting foam.

So in a lot of the big uses there are alternatives. There may be some crucial, absolutely essential uses that need to be retained until we can find out if there is an alternative, but the basic problem is we are seeing a lot of profligate—

Mr. CRENSHAW. And I just mentioned one of them, but those companies that make the PFAS membrane that will create chlorine, they will not do it when they are faced with trillion dollar liabilities because of being regulated under CERCLA.

So is that the right step to take?

Mr. OLSON. Well, what I will say is if you are contaminating somebody's drinking water with PFAS, you ought to be responsible for—

Mr. OLSON. But they are not. They are making chlorine.

Understand there is more to the supply chain than just—nothing here is touching the drinking water. The PFAS I not contaminating the drinking water in this case. We are talking about how to make chlorine, which is the opposite of contaminating the drinking water. It is what allows you to have clean drinking water.

Mr. OLSON. I understand. What I am referring to is a lot of the actual manufacturing of the PFAS has caused pretty widespread contamination in North Carolina and several other States.

Mr. CRENSHAW. I am out of time.

Thank you, Mr. Chairman.

Mr. TONKO. The gentleman yields back. You are welcome.

The Chair now recognizes the gentleman from California, Dr. Ruiz. Congressman, you are recognized for 5 minutes please.

Mr. RUIZ. Thank you, Mr. Chairman, for holding this hearing and for bringing attention to the important investments we made in clean drinking water through the bipartisan infrastructure act.

Water is life. Access to clean drinking water is a human right and a common good for all, and it is a priority for me for two reasons.

First, as a physician and public health expert, I know firsthand how important clean water is for our communities' health and for children's development. No matter if a child is growing up in downtown Detroit exposed to lead or in a farmworker trailer park exposed to arsenic in my district in rural California, they must have access to safe and clean drinking water.

Second, over the last few years a number of communities in my district have been exposed to water contaminated with dangerous levels of arsenic.

I want to be clear. There is no greater environmental injustice than children having to drink contaminated water that can increase their chances of developing neurological illnesses, heart disease, diabetes, and cancer.

I have been working on this issue since 2019 when the EPA issued an emergency order against Oasis Mobile Home Park located in Thermal on privately owned fee land in the Torres-Martinez Tribal Reservation in my district.

Since then the EPA has announced seven additional mobile home parks in my congressional district whose water exceeds the maximum contamination level for arsenic, which was naturally occurring in the groundwater in their well water system.

We must do everything to protect the health of my constituents, including getting these farmworker mobile home parks linked up with the local water district so they do not have to rely on these wells pumping unsafe water.

Mr. Olson, in your testimony, you mentioned a study that found that socioeconomic status and race were correlated with exposure to contaminants like arsenic and are also correlated with their water system being in noncompliance with safe drinking water standards.

What can we do to correct this environmental injustice?

And how do we ensure that these vulnerable communities are not exposed to these contaminants and are protected by Federal standards?

Mr. OLSON. It is an absolutely crucial issue, and that is one reason we are really glad that the bipartisan infrastructure law targets at least 49 percent of this new funding to disadvantaged communities.

Now, it is going to be up to your State of California. It is going to be up to each individual State to make sure that money actually goes to the communities that need it, and what we have seen in case after case is and I just heard earlier this week about a situation here State Revolving Fund money was going to a golf course community, to expand a golf course community's drinking water supply.

So we want to target the communities that really need it.

Mr. RUIZ. See, that is the reason why we have disparities. That is the reason why farmworkers get to drink arsenic in their water, yet you have development of these posh resorts in other areas.

And this is a problem in California.

Let me ask you another question. You know, I proudly supported the bipartisan infrastructure act, which contained \$11.7 billion in funding for the State Revolving Funds that you just mentioned, which provide loans and other assistance for water projects. This is a fund that could be used for consolidating water systems and help bring clean drinking water to my constituents in these farm-worker mobile home parks in the Eastern Coachella Valley.

However, in the State of California, there is a rule that prohibits utilities from using rate payer funds for non-rate payer projects like those in the farmworker trailer parks in Eastern Coachella Valley which prevents those mobile home parks or water districts like the Coachella Valley Water District from accessing the Federal loan portion of the State Revolving Fund for water consolidating projects, like they can in other States.

So with this in mind, how can we help communities under this restriction access the increased money we provided in the infrastructure law for the State Revolving Fund, particularly for water system consolidation projects?

Mr. OLSON. Well, I would love to talk to your office. I do not know the details of the California rules, which surprises me honestly. I know Community Water Center in California has been working on trying to address some of the very issues you are talking about. I would love to followup with you on that because that is a very important issue.

Arsenic should not be in anybody's drinking water.

Mr. RUIZ. Absolutely not. And we put \$11.-some billion in the State Revolving Funds. This is a fund pool or pocket that could be used, but we cannot bring those funds that we just put money into.

So we have to address this barrier in the State of California to bring the money into consolidating these projects.

And so with that I yield back my time.

Mr. TONKO. The gentleman yields back.

And the Chair now recognizes the gentlelady from Delaware, Representative Blunt Rochester. You are recognized for 5 minutes, and thank you for joining us virtually.

Ms. BLUNT ROCHESTER. Thank you so much, Mr. Chairman and Ranking Member McKinley, for calling this hearing.

And I also want to thank all of the witnesses for your testimony today.

The bipartisan Infrastructure Investment and Jobs Act is an important step to provide long needed improvements in drinking water quality and accessibility, and we are already seeing the benefits of this legislation in Delaware.

Earlier this month, Governor Carney announced that Delaware agencies would start accepting applications for grants and loans for drinking water and wastewater system improvement across the State. Using the historic funding from the infrastructure law to the existing Drinking Water State Revolving Fund and Clean Water State Revolving Fund, along with the recently established State Clean Water Trust, to support these opportunities.

Water accessibility and affordability in the United States had been a mounting crisis for years, and the infrastructure law gives

us an opportunity to make real and lasting improvements across our drinking water systems.

But our investments cannot end there. The Environmental Protection Agency estimates that maintaining and upgrading the Nation's drinking water and wastewater systems will cost more than \$750 billion over the next 20 years.

We need to continue to work together to ensure that every person in this country, regardless of race, income, or zip code, has access to clean, reliable, and safe drinking water. This is a fundamental need that we can and should deliver to all Americans.

My first question is for Mr. Olson. In your testimony, you highlighted the recommendation to create a low-income water assistance program, and last year I introduced H.R. 3293, the bipartisan Low-Income Water Customer Assistance Program, along with my colleagues, Representatives Katko, Dingell, and Tlaib. This legislation was included in previous past packages and would establish programs at EPA that would assist low-income households to maintain access to drinking water and wastewater services.

Can you discuss why these types of financial utility assistance programs are so important?

Mr. OLSON. Thank you for the question.

Yes, we have actually been supportive of low-income water assistance. We have this for heat. We have low-income heating assistance, but we do not have a low-income water assistance program.

There is a little bit of a pilot program that was created, but it really has not been financed, and it is something that I think is crucial.

The other crucial thing to do is make sure that water rates are structured in a way that will help lower-income people. So we favor restructuring of water rates as well so that there may be lifeline rates for very low-income people.

So that it is a combination of low-income water assistance and reform of water rates.

Ms. BLUNT ROCHESTER. Great. Thank you so much for also mentioning the LIHEAP Program.

I am following up on Representative Carter's question. A lot of today's hearing is focused on public water infrastructure, but nearly two in ten Delawareans use private wells, and some communities in the State are in such remote and rural areas that even if they wanted to connect to a public water system, they are unable to do so.

What are States doing to reach more remote communities that are not on public water systems?

And how can Congress help support those homes that are not on traditional water lines?

Mr. MCGOFF. Is that a question for Mr. Olson?

Ms. BLUNT ROCHESTER. Yes.

Mr. OLSON. OK. I will start it. It looks like Ms. Mathieu may also have something to say.

But I think it is really important for States to make this a priority, and it is something that I know that for years it has been debated about exactly what has to happen for private wells.

Right now the Safe Drinking Water Act does not protect them at all, and it is ending up that so many States are realizing USGS is

showing that there is widespread contamination of these private wells with arsenic, with bacteria, with PFAS.

We really need to address this problem, and currently the Federal laws really do not reach them. It has been left to States.

Ms. MATHIEU. And I will add to that.

Ms. BLUNT ROCHESTER. Yes.

Ms. MATHIEU. If I may, I could add to that. In Connecticut, there are 325,000 private wells. The only tests that are done is during the first time when that well is drilled.

We are trying in Connecticut to pass a law through our legislative session right now to require, at the very least, testing on property transfer, at the very least.

Now, that is not everything. We really do believe private wells should be tested more often, and there are substantial issues, sodium chloride, uranium, arsenic, iron, manganese, people face every single day.

A lot of these sources, a lot of these wells are not tested at all. We really truly believe that that water should be tested.

Ms. BLUNT ROCHESTER. Great. Thank you.

I have another question that I will submit for the record for Mr. Diaz about apprenticeships, but I want to respect everyone's time. And thank you, Mr. Chairman, and I yield back.

Mr. TONKO. You are most welcome. The gentlelady yields back.

The Chair now recognizes the gentleman from Florida. Representative Soto, you are recognized for 5 minutes please.

Mr. SOTO. Thank you, Mr. Chairman.

We have a duty in the Congress to provide clean water for every American. My test is pretty simple. If it is not fit for my family, it is not fit for any family in Central Florida.

When we see the American Society of Civil Engineers, they have given us a C-minus in the most powerful, wealthiest country in the world. When I look at areas in my district, we have in St. Cloud, Florida resin buildup that has made water brown. We have neighborhoods like Kissimmee where even my neighbor just the other day had a corroded pipe going into our neighborhood that has to be replaced.

East Orlando, Kissimmee, Haines City, Winter Haven, Lake Wales, all aging pipes from the 1880's to the early 1920's, with some of them built in the 1950's.

Add in the septic tanks and other water leaks affect the water quality of our lakes as well, and you see there is a big challenge ahead for Central Florida.

I have the fastest growing district in the Nation. So it is only getting bigger from there, but I am excited that help is on the way. The infrastructure law, \$55 billion for drinking water, wastewater, and stormwater, \$30 billion for drinking water, helping State Revolving Funds that have been talked about so much here; nine billion to remove PFAS, 15 billion for lead.

We appreciate two of our Republican colleagues on this committee for supporting the bill, as well as all Democrats. We need to move forward on this.

Mr. Adeem, it would be great for you to help us paint a picture for my constituents. For pipes that were built from the 1880's to

the 1920's that are 100 to 120 years old, what do those look like right now and how does that affect water quality?

Mr. ADEEM. Thank you, Congressman, for that question.

They are old. They are brittle. The C factor is tuberculation buildup on old cast iron water mains or, you know, in my city we removed in the early 1990's probably one of the last wood water mains. It was great to see.

But this infrastructure has exceeded its lifetime. We have pipes dating back to Abe Lincoln, when President Lincoln was in power, the President when we ran our distribution system.

It is time to upgrade those systems.

Mr. SOTO. Thank you for mentioning the old cast iron pipes because that is exactly what flooded in our neighborhood next to a constituent's daughter's bedroom as it was bringing water in for the neighborhood and for fire hydrants.

Ms. Mathieu, it would be great for you to also paint a picture of what 100-to 120-year-old pipes look like and then add in that some of them were made from lead. How does that affect communities?

Ms. MATHIEU. So we have a lot of those aged mains in our State, a lot in the Northeast. All of those need to be replaced over the next 10 years.

We also have wooden water mains that are being replaced in our State. The unfortunate thing is that there are so many of them to replace, and in our State we have about 40 medium-size cities, and many of those struggle financially. There are between 40 to 50,000 people.

They are also dealing with stormwater, sewer water, CSOs, you know, disconnecting the stormwater to sewer water, as well as drinking water.

This infrastructure funding, this influx to drinking water infrastructure is timely. It is incredibly important to working with those communities, those 40 communities that serve larger populations, that have populations within them that are disadvantaged, that need the help, that need the investment in not only their pipes but their treatment, their pump stations, and all the other mechanisms that run that system.

Mr. SOTO. I am glad you mentioned midsized cities. I have a lot of them that are around 50,000 people, like a St. Cloud or a Kissimmee or Winter Haven, Florida. You mentioned them in Connecticut, too.

What would it cost to do a basic upgrade of aging pipes and water systems in a midsized city of 50,000?

If you want to defer to Mr. Adeem, by all means.

Mr. ADEEM. Thanks, Congressman.

It would normally depend on the length of water main or sewer main that they have, the length and the size, but it is millions of dollars, probably billions of dollars.

Mr. SOTO. Well, thank you for that.

When I think about wooden pipes and cast iron pipes that are—we do not have wooden ones in Central Florida. We are a little newer than that, but we have cast iron pipes that are corroded that when they are dug out of the ground, you cannot believe that drinking water for our families in modern times was going through such an antiquated piece of piping.

So thanks for your testimony today. Together we can get this done for America.

And I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from Arizona. Mr. O'Halleran, you are recognized for 5 minutes please, and thanks for joining us virtually.

Mr. O'HALLERAN. Thank you, Mr. Chairman, and thank you, members, for this ensuring that every American has access to clean drinking water hearing. What a novel idea.

Now, this is a critical issue across America, but even more so in Northern Arizona where tribal lands and rural lands have continued to be left behind.

I often talk about the digital divide, but there is also a drinking water divide in our country. In my district, 40 percent of homes on the Navajo Nation do not have access to clean drinking water.

This problem is compounded by the historic injustices of environmental degradation on tribal lands, and the government's failure to clean up the over 500 abandoned uranium mines on the reservation.

These Super Fund sites directly limit the availability of clean drinking water for thousands of Navajo residents and put at risk huge aquifers in the Western United States.

For far too long the government has stood in the way of tribes' ability to protect our citizens from harmful contaminants.

Mr. Olson, tribal communities face unique challenges. How can we support tribal communities so they can access clean drinking water?

What resources in the bipartisan infrastructure law can be used toward that goal?

And beyond funding from the law, what else can Congress do to help these communities access safe drinking water?

Mr. OLSON. Thank you for that really crucial question.

I mentioned in my testimony how tribal communities in so many cases have in some cases no drinking water at all, no sanitation at all. They have to carry their water.

In a lot of other cases, they have contaminated water.

A key is certainly funding. Another key is technical assistance because a lot of these communities, they do not have the wherewithal to even put together an application to get the money.

So we need to have money that is specifically set aside for the tribes is one key aspect, and then we also need the technical assistance to help them actually apply for the funds and to actually implement and to operate and maintain these facilities.

And I would agree with you. What has gone on in the Navajo Nation with uranium mining contaminating large swaths of the tribal area is inexcusable, and the Federal Government really owes a lot to that community to clean it up.

Mr. O'HALLERAN. Thank you, Mr. Olson.

The bipartisan infrastructure law makes historic investments to the United States drinking water restructure, including \$9 billion to remove PFAS contaminants from drinking water, a serious issue faced in the Tucson water system.

The law also includes \$30 billion for water infrastructure, and this funding is badly needed throughout the Western United States and America.

Last week my staff visited a small town in my district, Kearny, and saw the decaying water infrastructure firsthand. The residents cannot drink the water. Cleanup and replacement of drinking water infrastructure is often prohibitively expensive, making it unrealistic that small towns like Kearny can foot the bill.

It is an historic mining area also.

Ms. Mathieu, you mentioned in your testimony the challenges towns and communities with very small populations have with applying for funds through the drinking State Revolving Funds.

How can States, tribes, and the EPA work to ensure these small communities are able to upgrade their drinking water infrastructure?

What does a successful partnership look like in implementation of these funds?

And how can we work with the States especially to make sure that their laws are in compliance with the intent of Congress?

Thank you.

Ms. MATHIEU. Thank you. Thank you for your question.

The smallest systems struggle the most. They struggle with compliance with the Safe Drinking Water Act, just the most basic things.

I think a number of panelists have said it. They need direct technical assistance, and that may not be my engineers who are regulators. That may be the rural water associations, the circuit riders, this technical hub.

And in not just one time and hold the night meeting and leave, but to stay there. You know, I have talked to many people who look at us as, you know, we are the bad guys. We are the regulators.

But you have to meet them in their neighborhoods. You have to talk to the people, and you have to understand what their concerns are, and again, a lot of it is financial. They do need technical help in just completing the applications.

And I think Mr. Adeem also said—

Mr. O'HALLERAN. Ms. Mathieu, I do have limited time, and I do want to just say—

Ms. MATHIEU. I am sorry.

Mr. O'HALLERAN [continuing]. Mr. Chairman, we have to find a way to make sure the States address the intent of what we are trying to accomplish here for rural America and tribal lands in America and not just concentrate on these other areas that already have good drinking water, and they are just trying to improve it a little bit more versus what we see day in and day out in many areas of our rural America.

Thank you very much. I appreciate it.

Mr. TONKO. Point well made.

The gentleman yields back.

And the Chair now recognizes virtually the Representative from the State of Florida, the gentlelady, Representative Castor, is recognized for 5 minutes please.

Ms. CASTOR. Hi, Chair Tonko, and thank you to our panelists very much for discussing clean drinking water today.

I mean, clean drinking water is central to the health and prosperity of families across the country, making sure that they can thrive and the bipartisan infrastructure law is an enormous achievement for President Biden and all of us, but most importantly, it will help our communities back home.

So, Chair Tonko, this oversight hearing is very important. I appreciate you organizing it.

Especially in the wake of the fact that we know we have aging pipes. It is not lost on us that the American Society of Civil Engineers had graded drinking water infrastructure with a C. It is worse in a lot of areas due to aging infrastructure.

In my neck of the woods, in the Tampa area, we consistently have water main breaks and having to replace service lines.

And now we know we also have more responsibility to get the lead out of the piping, to replace the lead pipes, and address the PFAS and other chemicals.

But we also need to make sure that these substantial funds as they are distributed across the country, that they go to make communities more resilient; that our drinking water infrastructure is resilient to the rising costs and impacts of the climate crisis.

And, Mr. Diaz, in your testimony, you noted the importance of EPA's implementation guidance for ensuring equity in climate resilience. EPA has said that States should prioritize disadvantaged communities and support projects that apply the best available and most geographically relevant climate information projections and standards, such as the Federal flood risk management standard.

Communities across the country are already experiencing those climate fueled rising costs and impacts, whether it is sea level risk or more frequent and costly storms.

So how can Congress help States and communities access information about climate risk and vulnerability to ensure that projects will be resilient into the future, to make sure that they are making cost effective decisions?

And how can States prioritize the needs of environmental justice communities in State plans and funding allocations?

Mr. DIAZ. Thank you for that question, Congresswoman Castor.

You know, climate change has a great strain on our Nation's water infrastructure, and the clean drinking water State Revolving Loan Funds are the main sources of funding for States, not only to update and maintain water infrastructure, but also to assure that this infrastructure is resilient to climate change.

One study from the National Association of Clean Water Agencies estimated that States will need an additional 448 to \$944 billion by 2050 to reengineer water systems to cope with sea level rise, extreme weather events, droughts, and floods.

The EPA estimates that just the capital cost of clean drinking water infrastructure over the next 20 years is about \$750 billion.

We have an historic infusion in funding in the bill and somewhere in the ballpark of about \$23.5 billion for drinking water and clean water State Revolving Loan Funds, and that is split equitably.

This is a massive step and provides a significant down payment on the investment needed to upgrade our water systems.

Ms. CASTOR. Well, and thank you very much.

And, Mr. Olson, you have testified about the importance of addressing climate risk to water infrastructure including extreme weather and droughts and groundwater depletion, saltwater intrusion. You recommend increasing the use of integrated water resource management strategies to help with water supply and flooding and water quality in a more integrated way.

How can Congress help promote that thoughtful strategy on integrated water resource management?

Mr. OLSON. Obviously, funding is part of it and is urgently needed, and unfortunately, we are going to be facing, I think, a nationwide crisis as we see more and more of these extreme storms and more of the drought conditions we are seeing in many parts of the country.

So I think funding is part of it. Assistance in identifying where the problems are worse; we are seeing a lot of coastal areas like your district where you are seeing saltwater intrusion becoming a significant issue in many of these coastal areas, and as climate change happens, we are going to see more of that.

So I think help with planning and technical assistance with planning and dealing with that are going to be key aspects of it. But without the funding, you are not going to solve this problem.

Ms. CASTOR. Thank you very much.

Thank you, Mr. Chairman. I yield back.

Mr. TONKO. You are most welcome.

The gentlewoman yields back.

The chair now recognizes the gentleman from California who joins us virtually. Representative McNerney, you are recognized for 5 minutes please.

Mr. MCNERNEY. Well, I thank the chairman.

I thank the witnesses for hanging in there. I may be the last member. So thank you very much.

I am very proud of the historic investment that we have made with the Infrastructure Investment and Jobs Act to improve the drinking water and health of our systems.

However, the American West is in the mega drought, at least 112 years, the worst in 112 years. 2022, in fact, has seen the driest January and February on record. Farmers are facing severe water cuts. Wells are drying up. Some communities have already run out of water.

So we have to achieve long-term drought resilience, which requires long-term, dedicated investments. If you do not have water, you do not have to worry about water quality.

So our water systems lose about 14 to 18 percent of treated water in leaks in the system, and an additional amount is lost through inefficient fixtures.

Mr. Diaz, you spoke of the energy and financial implications of wasted water in your written testimony. Would you elaborate on the benefits of improving water efficiency and addressing water loss?

Mr. DIAZ. Certainly, Congressman.

You know, the question is spending all this money to replace our water infrastructure truly fiscally responsible, and you know, in terms of lead service line replacement, you know, investing in lead

service line replacement not only prevents lead poisoning and creates jobs, but also saves taxpayers money in the long run.

In terms of wasted water and, you know, what the bipartisan infrastructure law investments do to help us preserve water systems through preventing water main breaks and leaks, it is an investment that is truly needed.

I do not have an adequate response to your question in detail, but I would like to followup with your office to provide some more insight.

Mr. MCNERNEY. Very good. I appreciate that.

Mr. Olson, would regular audits and improved data collection help reduce loss in drinking water systems?

Mr. OLSON. Yes. We certainly believe that one key is to have water loss accounting so that water systems are actually tracking.

I actually looked into one system, a large system in Puerto Rico that said that they were losing 50 percent of the water that they pumped into their system as unaccounted for.

So what we are seeing is pretty widespread problems. That is an extreme example, but we heard earlier just today in this hearing that as much as 30 percent of water is being wasted or lost, and that is just an unsustainable situation.

We need to tighten up those pipes, replace the old pipes. We have heard about 100-plus year old pipes. They need to be replaced and tightened up, and we will actually save money over the long term if we do that.

Mr. MCNERNEY. Well, given the water-energy nexus, I mean, losing one and wasting one is wasting the other as well. So very important in terms of water availability and climate change.

Ms. Mathieu, a 2014 GAO review found that 40 out of 50 State water managers expected shortages in the next decade, and that additional uncertainty is likely with climate change.

What additional resources do drinking water administrators need to plan for or need to plan for scarcities and shortages especially in the drought-prone areas?

Ms. MATHIEU. I think what is mission critical for public water systems, to have plans, to have long-term plans, to test their sources of supply and understand what their safe daily yields are, and then not to do that once 30-years ago, but to do that maybe every couple of years so that you understand the impacts of climate change.

I think a lot of the impacts are not understood or known, and I think many utilities maybe across the country need to do more planning and invest in that planning.

Mr. MCNERNEY. OK. Mr. Olson, in California's Central Valley where my district is located nitrate pollution is becoming increasingly common in groundwater. Many communities have lost their wells to nitrate pollution

and are now relying on water delivery.

What kind of strategies are needed to address and mitigate legacy pollution in source water and groundwater?

Mr. OLSON. Well, there are basically two things that need to happen. One is we need to control the sources of nitrate pollution, which we are not doing a very good job of in so many communities. Over-application of fertilizer or sewage can be contributors.

And we also, frankly, need to invest in fixing the nitrate problem where there is a legacy contamination. That means pretty expensive treatment. Some utilities like Des Moines, Iowa have had to spend tens of millions of dollars to clean up their nitrate contamination.

And some smaller communities especially are going to need help in paying for treatment because it is not cheap.

Mr. MCNERNEY. OK. Well, thank you.

My time has expired. Mr. Chairman, I am going to yield back to you.

Mr. TONKO. Thank you.

The gentleman yields back, and I believe that completes the list of members that have chosen to ask questions of our witnesses.

I do, on behalf of the subcommittee, thank all of our witnesses for joining us for today's hearing. A tremendous information exchange, and thank you for the challenges you are making our way to make certain that we move forward with greatest progress.

I remind members that pursuant to committee rules, they have ten business days by which to submit additional questions for the record that would be answered by our witnesses.

I ask that our witnesses please respond promptly to any such questions that you may receive.

Before we adjourn, I have a list of items that have been requested for unanimous consent to enter the following documents into the record:

A letter from the National Rural Water Association; A letter from the Rural Community Assistance Partnership; A letter from the American Water Works Association; A letter from the Association of Metropolitan Water Agencies; A letter from industry associations; A replacement ordinance notice; A letter from the Department of Environmental Protection of the State of New Jersey; Inventory source data from the Parkersburg Utility Board of West Virginia; and a letter from EPA Administrator Mike Regan.

Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. TONKO. With that, at this time the subcommittee hearing is adjourned.

[Whereupon, at 1:19 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



March 29, 2022

Chairman Paul Tonko
House Subcommittee on Environment
and Climate Change
U.S. House of Representatives
Washington, DC 20515

Ranking Member David McKinley
House Subcommittee on Environment
and Climate Change
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Tonko and Ranking Member McKinley:

On behalf of all small and rural communities across the country, the National Rural Water Association is very appreciative of the U.S. Congress for the enactment of the bipartisan "Infrastructure Investment and Jobs Act" (IIJA). This legislation and its approximately \$50 billion in water infrastructure funding will be remembered as one of the most significant public drinking water and wastewater initiatives in the country, especially in rural America.

Our member communities have the very important public responsibility of complying with all applicable regulations and supplying the public with safe drinking water and sanitation every second of every day. However, most all water supplies in the U.S. are small; 91% (45,273) of the country's 49,708 drinking water supplies serve communities with fewer than 10,000 persons, and 81% (40,258) serve communities with fewer than 3,300 persons.

Small and rural communities have more difficulty affording public drinking water and wastewater service due to low population density and lack of economies of scale. This challenge is compounded by the fact that rural communities have lower average median household incomes and often have higher poverty rates. Likewise, we have a much more challenging time complying with Safe Drinking Water Act (SDWA) regulations due to small communities' lack of technical resources. While we have fewer resources, we are regulated in the exact same manner as a large community. Many small communities have only one operator with multiple duties beyond just water treatment. A large community, on the other hand, may have a team of technical experts, including engineers, chemists, and highly trained operators - all as part of their full-time staff. Small community water infrastructure projects can be more challenging to fund because they are smaller in scale - meaning numerous, very complicated applications have to be completed and approved as opposed to one large project. This is compounded by the reality that small communities lack the administrative expertise to complete the necessary application process.

Congress included numerous beneficial provisions for rural and disadvantaged communities in the IIJA that will allow them to access the new funding and overcome their challenges of lack of technical capacity including the expansion of technical assistance, subsidized funding, or grants targeted to the communities with the greatest need, and the targeting of funding assistance to disadvantaged communities which will often be rural and small. We are grateful that Congress created the IIJA with these provisions and priorities which ensure that the new federal drinking water funding will be targeted to the neediest communities and solve the most pressing drinking water safety challenges in the country. We also appreciate the fact that the IIJA does not include any new federal unfunded mandates on local governments.

The National Rural Water Association is the country's largest public water utility organization with over 30,000 members. Safe drinking water and wastewater service are generally recognized as the most essential public health, public welfare, and civic necessities.

We believe the Environmental Protection Agency's (EPA) March 8, 2022, IJA implementation memorandum appropriately reflects the Congressional priorities in the Act to assist rural and disadvantaged communities. We look forward to working with the EPA and our state government partners to help ensure the funding is quickly delivered to local communities' most pressing drinking water projects. EPA's memorandum is an excellent and essential first step in ensuring the funding will be used in the most effective manner possible throughout the country.

This committee is very important to rural and small-town America. Every federal dollar that has been granted to the many thousands of small towns to build, expand, and maintain their drinking water infrastructure through the drinking water state revolving fund was authorized by this committee. Also, every provision of the Safe Drinking Water Act was likewise authorized by this committee.

We are eager to express our strong support of the IJA and acknowledge the numerous opportunities this committee has provided rural America to testify and be included in the crafting of federal water and environmental legislation.

Sincerely,



Matthew Holmes
Chief Executive Officer



March 28, 2022

Representative Frank Pallone
Chair, House Energy and Commerce Committee
2107 Rayburn House Office Building
Washington, DC 20515

Representative Cathy McMorris Rodgers
Ranking Member, House Energy and Commerce Committee
1035 Longworth House Office Building
Washington, DC 20515

Dear Chair Pallone and Ranking Member McMorris Rodgers,

On behalf of the Rural Community Assistance Partnership (RCAP), I write in support of the House Energy and Commerce Committee's recent work to further develop and strengthen drinking water infrastructure in rural communities. RCAP is particularly encouraged by the funding for rural water infrastructure and technical assistance within the Bipartisan Infrastructure Law (BIL). As a leading technical assistance provider, we commend the creation of several new resources and investments that drastically improve the accessibility of training opportunities and technical assistance for drinking and wastewater programs in rural areas.

Water challenges are abundant in rural communities. Many of the communities we serve struggle to combat the rising costs of utility maintenance and infrastructure repair. It is especially important to address these concerns in smaller rural communities (those serving a population of 500 or less), as they represent 72% of our nation's approximately 150,000 public water systems.

Strong investments in water infrastructure within BIL represent an incredible opportunity to improve and maintain rural access to clean, safe, affordable drinking water. The Clean Water, and Drinking Water State Revolving Funds both received an effective tripling in funding over the next 5 years, including provisions for additional subsidization for disadvantaged communities, and decreased non-federal cost matching requirements, which will allow many more small, rural systems to benefit from this federal funding. RCAP is also encouraged by the Environmental Protection Agency's dedication to ensuring BIL's investments reach the small, disadvantaged, and rural communities that have the greatest level of need, as evidenced by the agency's recent memo on equitable implementation of BIL funds.

Further, we commend BIL's authorization of the first federally-funded pilot program for low-income water customer assistance, and are hopeful for this key program to receive funding in subsequent legislation. We applaud your committee's tireless bipartisan work on this important issue.

As the nation works over the next five years to implement funds from the BIL, RCAP thanks the committee for its work and is excited to continue working with you as we address water infrastructure needs across rural America.

Thank you,

Keith Ashby
Interim CEO, Rural Community Assistance Partnership



American Water Works
Association

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March 28, 2022

The Honorable Frank Pallone, Jr.
Chair
The Honorable Cathy McMorris Rodgers
Ranking Member
House Committee on Energy and Commerce
Washington, D.C. 20515

Comments Offered on Hearing,
"Trusting the Tap: Upgrading America's Drinking Water Infrastructure"
on March 30, 2022

Dear Chairman Pallone and Ranking Member Rodgers,

The American Water Works Association (AWWA) asks to submit for the hearing record the following comments on the nation's drinking water infrastructure and implementation of the Infrastructure Investment and Jobs Act so far.

AWWA thanks the House Committee on Energy and Commerce for addressing the state of the nation's water infrastructure and efforts to rehabilitate and upgrade that infrastructure. A safe and reliable drinking water supply is necessary to protect public health and safety, and to ensure a community's economic viability. At this time, we want to particularly express deep gratitude to Congress and the Biden Administration for tackling water infrastructure needs in such bold ways in the Infrastructure Investment and Jobs Act of 2021.

The State of the Nation's Drinking Water Infrastructure

AWWA has been raising concerns about the nation's aging water infrastructure to Congress, local decision-makers and ratepayers for a number of years. Our 2012 study, "Buried No Longer: Confronting America's Water Infrastructure Challenge," revealed that the United States would need to spend \$1 trillion over the next 25 years just to maintain the current level of drinking water service. Since then, we have provided to the water community conference sessions, educational materials, webinars and similar offerings on topics such as asset management, capital investment strategies, setting sustainable water rates and related topics. An update of this report is in progress as well.

The U.S. Environmental Protection Agency (EPA) conducts a needs analysis for drinking water infrastructure every four years. The agency then uses the findings from this to determine how appropriations for the state revolving loan fund (SRF) program will be allocated among states. The latest needs survey, released in March 2018, said that over the next 20 years, there would be \$472.6 billion in drinking water infrastructure needs. However, that covers only projects eligible for funding under the SRF program. We believe this number is conservative because it

is based primarily on responses to a survey. We do encourage our members to respond when EPA issues its request for responses.

We do see progress in addressing the country's water infrastructure needs. We see acceptance of the principal that we need to invest more in water infrastructure among members of the public, elected leaders at all levels of government and of course, utility leaders themselves. Even before passage of the IIJA, Congress began ramping up annual appropriations for the drinking water and wastewater SRF programs. AWWA led stakeholders in advocating enactment of the Water Infrastructure Investment and Innovation Act (WIFIA), and we are grateful to Congress for passing that legislation in 2014. In 2017, after EPA set up the administrative framework for the program, Congress provided money for WIFIA to start making loans. Since then, the WIFIA program has closed on 72 loans totaling \$13.3 billion in assistance to utilities. Because WIFIA finances up to 49 percent of a project's costs, that means the program has made possible \$28 billion in water infrastructure investment. It has also created 81,000 jobs, according to EPA's calculations. Many more loan applications are currently under consideration at EPA.

Tax-exempt municipal bonds remain an important tool for publicly held utilities to finance water infrastructure. Whenever the tax code comes up for revision in Congress, we hear proposals to eliminate that tax exemption. We thank Congress for preserving that critical tool. While in the last tax bill, municipal entities did lose the tax benefits of advanced refunding of such bonds, we want to work with Congress to restore that flexibility in the future.

The Infrastructure Investment and Jobs Act

As stated earlier, enactment of the IIJA was a tremendous leap forward in addressing the nation's water infrastructure, as well as a host of other critical infrastructures. We understand channeling the money through the SRF programs was the best way to get money moving quickly, much quicker than creating new federal programs. The traditional SRF requires that states put up a match of 20 percent of the funding allocated to a state. This match requires action by state legislatures. Therefore, we appreciate Congress not requiring a state match for many of the funds in the IIJA, meaning these funds can move out to states much more quickly.

The \$15 billion provided for removal of lead service lines and related activities, such as inventorying such lines, can provide a great boost to the nation's effort to remove those lines. AWWA commissioned an independent researcher to develop an estimate of the number of lead service lines in the U.S. His study showed that there are at least 6.1 million lead service lines in America. We calculated that at a minimum, it will cost the country \$60 billion to remove all service lines that will need removing under the Revised Lead and Copper Rule that EPA issued. It will likely be more than that. That said, the \$15 billion represents a substantial step forward. Removing all of the country's lead service lines will be a decades-long effort. In addition to the funds provided in the IIJA, utilities will look for financing in the traditional SRF program, WIFIA, municipal bonds and customer rates.

We feel it is probably not fair to grade EPA on implementation of the IIJA at this point, as we are relatively early in the implementation phase. However, we can make some observations on what has taken place.

On March 8, EPA issued a memorandum on implementation of IIJA funds flowing through the drinking water and wastewater SRF programs. We saw useful information and encouraging themes in that memo:

- Descriptions of activities eligible under lead service line removal;
- a definition and listing of emerging contaminants;
- encouragement to state SRF agencies to be flexible in administering funds;
- encouragement to state SRF agencies to streamline SRF application processes; and

- advice to state SRF agencies to revise and update their definitions of disadvantaged communities.

Concerns

As we said earlier, we are grateful to Congress for providing much-needed funds for the nation's water infrastructure in the IIJA. We do have questions and concerns, however, about implementation going forward:

1. The IIJA is sending a huge volume of money and tasks through EPA and state agencies. We are concerned about the potential impact of this workload on their ability to deliver funds in timely manner.
2. Distribution of funds for lead service line replacement to states will follow the allocation formula for traditional SRF allocations, which is based on the latest needs survey.
 - i. Therefore, the allocation of these funds will be based on overall infrastructure needs and not just lead service line removal needs.
 - ii. What are the processes and timelines at EPA for reallocation of SRF funding if certain states do not or cannot use their allotments in a given fiscal year?
3. The new Build America Buy America domestic content requirements.
 - i. We are awaiting OMB guidance on this.
 - ii. We have experience in American Iron and Steel requirements in federal assistance, but BABA requires a new learning curve for the new standards.
 - iii. We have concerns about the ability of domestic manufacturers to produce products not currently available in this country in a timely manner, given the five-year window for IIJA funds.
 - iv. There is a waiver provision in BABA, but we need for it to be transparent and expeditious to be useful.
4. Water systems – particularly small or rural systems – that have never applied for an SRF loan before will need assistance in navigating assessments of their own capital needs, rates and financial planning and in navigating the SRF process. Assistance for small systems is mentioned in the IIJA, but this will still be a challenge.
5. Some water systems are too large for programs or efforts geared toward small systems, but not large enough to have full-time staff dedicated solely to seeking financial assistance. These mid-sized systems are asking for a clear, transparent path for applying for funds and transparency in the factors weighed in selecting applicants for loans. They may not qualify as disadvantaged systems, but the costs of rehabilitating infrastructure and of complying with new regulations will still weigh heavily on them.

Again, we thank the committee for passage of the IIJA and for addressing this vital and timely topic in this hearing. We offer the expertise and experiences of our membership and staff as you continue to deal with these issues.

Sincerely,



G. Tracy Mehan, III
Executive Director for Government Affairs
American Water Works Association
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LEADERS IN WATER

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March 29, 2022

The Honorable Paul Tonko
Chairman
Environment and Climate Change Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

The Honorable David McKinley
Ranking Member
Environment and Climate Change Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Tonko and Ranking Member McKinley:

The Association of Metropolitan Water Agencies (AMWA) appreciates the opportunity to submit comments for the record of the subcommittee's hearing on "Trusting the Tap: Upgrading America's Drinking Water Infrastructure." It is well established that the nation's drinking water systems face hundreds of billions of dollars' worth of investment needs over the coming decades, to maintain current levels of service and to provide Americans with continued confidence in the quality of the water that comes from the tap. AMWA commends the subcommittee for holding this hearing on this important topic.

Last year AMWA supported passage of the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act, because of its landmark investments in drinking water infrastructure that will begin to make progress toward addressing these needs. It is AMWA's hope that the BIL will be implemented in a manner that is reflective of congressional intent and consistent with the needs of water systems across the country, both large and small.

AMWA greatly appreciates the work EPA has done to date to prepare for the task of distributing the \$48.4 billion in drinking water and wastewater infrastructure funds that will be made available through the BIL. The agency's implementation memorandum issued earlier this month will guide how states and communities can put these funds to work addressing priorities like the replacement of lead service lines, remediating PFAS and other emerging contaminants, and building resilience to a wide range of threats.¹ Especially considering that the Biden Administration has identified increased investment in disadvantaged communities as a key priority of the BIL, AMWA is eager to see the law implemented in a

¹ U.S. EPA, *Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law*, March 8, 2022. https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf.

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The Honorable Paul Tonko
 The Honorable David McKinley
 March 29, 2022
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manner that maximizes benefits to low-income water ratepayers across the country, regardless of where they reside.

While the BIL is major legislation with countless critical components, AMWA believes careful attention must be paid to three areas that directly affect drinking water systems and their customers: the distribution of additionally subsidized State Revolving Fund (SRF) dollars, funding to support lead service line replacement projects, and the application of expanded “Buy America” mandates. We also have several other policy suggestions to help ensure clean and safe drinking water for all Americans now and into the future.

Additional subsidization of SRF dollars

As the infrastructure law is implemented, AMWA believes EPA should maximize the opportunities for states and municipalities to spend funds in a way that delivers the most benefit to low-income households and communities. However, AMWA has some concern that EPA’s implementation memorandum suggests that the agency is not prepared to use the full scope of authority granted by Congress to ensure that additionally subsidized SRF dollars reach low-income communities, no matter where they are.

Division J, Title VI of the BIL specifies that 49% of the Drinking Water and Clean Water SRF appropriations provided through the measure for qualifying public health projects and lead service line replacements, and all of Drinking Water SRF appropriations provided to address emerging contaminants, must go to “eligible recipients” in the form of additional subsidy delivered as grants or 100% principal forgiveness loans. The BIL does not define the term “eligible recipients,” but does specify that section 1452(d)(2) of the Safe Drinking Water Act (SDWA) – which limits the amount of additional loan subsidy that states may award to state-defined disadvantaged communities to no more than 35 percent – shall not apply to the BIL funds. Importantly, this language does not require any baseline amount of the BIL funds to be devoted exclusively to communities defined by states as disadvantaged under SDWA, and the intent of Congress appears to be for these funds to support water and wastewater projects in any low-income community or neighborhood.

However, on page 3 of EPA’s implementation memorandum the agency states:

The BIL mandates that 49% of funds provided through the DWSRF General Supplemental Funding and DWSRF Lead Service Line Replacement Funding must be provided as grants and forgivable loans to *disadvantaged communities* [emphasis added]... The SDWA requires states to establish a definition of disadvantaged communities that can receive this additional subsidization.

This interpretation is inconsistent with a plain reading of the text of the BIL, which makes the additionally subsidized SRF funds available to “eligible recipients.” Under the statute, these “eligible recipients” do not necessarily represent the same universe of water systems as those formally designated by states as “disadvantaged communities” pursuant to section 1452(d)(3) of SDWA.²

² “(3) DEFINITION OF DISADVANTAGED COMMUNITY.—In this subsection, the term “disadvantaged community” means the service area of a public water system that meets affordability criteria established after public review and

The Honorable Paul Tonko
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To maximize considerations of equity and the provision of assistance to a wide range of low-income communities and ratepayers, AMWA wrote to EPA on February 11 to encourage the agency to interpret “eligible recipients” to be any community water system that is eligible to receive SRF aid, and which will use these grants or principal forgiveness loans on projects that will significantly benefit low-income populations in their service area.³ This would deliver benefits to low-income areas that do not fall within traditionally defined “disadvantaged communities,” but would not preclude those communities from receiving any portion of those funds.

Conversely, limiting the additionally subsidized SRF dollars to state-defined “disadvantaged communities,” as EPA has recommended through the implementation memorandum, would wall off nearly half of the BIL’s SRF funding from large metropolitan water systems across the country that serve significant low-income populations. This is because in practice, many states define “disadvantaged communities” under SDWA in such a way as to focus on small and rural water systems with relatively uniform income demographics, as opposed to metropolitan water systems whose entire service area includes a combination of both low-income neighborhoods as well as more affluent areas.

In short, Congress gave EPA the ability to allow additionally subsidized SRF dollars provided through the BIL to reach a wider range of low-income communities than may be reached through regular SRF appropriations, so AMWA believes EPA should take advantage of this opportunity. This could be achieved by requiring any water system that receives additionally subsidized SRF funding through the BIL to spend those funds on projects that directly benefit low-income communities or low-income ratepayers within their service area.

Lead service line replacement funding

AMWA enthusiastically supported the BIL’s inclusion of \$15 billion over five years in additional Drinking Water SRF funding dedicated to addressing lead in drinking water. Specifically, the BIL allows the funds to be used “for lead service line replacement projects and associated activities directly connected to the identification, planning, design, and replacement of lead service lines.” We appreciate that EPA’s implementation memorandum clarifies that these funds may also be spent on the replacement of lead goosenecks, pigtails, and connectors that are not part of the service line itself.

But we have several questions about EPA’s interpretation of the lead service line replacement funding that we hope will be addressed. First, like the general SRF funds provided through the BIL, EPA’s implementation memorandum specified that 49% of each state’s share of the capitalization grant for lead projects must be provided as additional subsidization to state-defined “disadvantaged communities,” rather than “eligible recipients” as stated in the statute. We urge EPA to revise this interpretation to better

comment by the State in which the public water system is located. The Administrator may publish information to assist States in establishing affordability criteria.”

³ <https://www.amwa.net/letter/amwa-letter-bipartisan-infrastructure-law-implementation-guidance>.

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allow metropolitan water systems that serve low-income residents to take advantage of these additionally subsidized funds for projects that benefit urban in-need populations.

Second, the implementation memorandum states that EPA “encourage[s] states to fund the private portion of service line replacements at no additional cost to the homeowner.” While some community water systems do offer to replace the privately-owned portion of a lead service line at no cost to any homeowner, others prefer to stretch their limited resources by asking homeowners to pay for some portion of the pipe replacement – especially in the case of homeowners that are not low-income. While full lead service line replacement at every property is the ultimate goal, AMWA believes that, given the statute’s lack of direction on the topic, each individual water system should have the authority to decide whether to use their portion of the BIL funds to pay for the replacement of privately-owned lead service lines.

EPA’s implementation memorandum further states the following:

Any project funded under this appropriation involving the replacement of a lead service line must replace the entire [emphasis original] lead service line, not just a portion, unless a portion has already been replaced or is concurrently being replaced with another funding source.

AMWA agrees that it is a best practice to fully replace lead service lines, and to avoid only partial replacements whenever possible. However, there are some limited scenarios where a partial replacement may be necessary, such when a homeowner refuses to give consent for the water system to access their property to replace the private side of the line concurrent with the replacement of the public side. But because the text of the BIL does not appear to require the lead service line replacement funds to be used exclusively on full replacements, AMWA would appreciate additional clarity from EPA on how the agency arrived at the determination that these funds “must replace the entire lead service line,” and how this requirement will be enforced when homeowner refusal becomes a barrier.

It is also notable that as approved by Congress, the BIL directs EPA to distribute the lead service line replacement funds as capitalization grants to states using the same needs-survey-based formula that governs the distribution of annual Drinking Water SRF dollars. This is the case even though the most recently completed Drinking Water Needs Survey and Assessment does not account for lead service line replacement costs, and that a state’s allocation under the Drinking Water SRF distribution formula does not necessarily align with its relative lead service line replacement need. AMWA recognizes that states may use their share of these funds to complete required lead service line inventories, but encourages EPA to promptly reallocate any unused and leftover lead remediation funds to other states that will be able to put the funding to good use.

Expanded “Buy America” mandates

Another topic of interest in the BIL is the expansion of existing American Iron and Steel requirements that apply to the SRF program. EPA’s implementation memorandum notes that Title IX of the BIL expanded these requirements to include construction materials and manufactured goods, consistent with

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Build America, Buy America (BABA) domestic sourcing requirements that were also applied to other federal infrastructure financing programs. While we understand that EPA intends to issue a separate memorandum related to BABA after the Office of Management and Budget publishes guidance on the topic, AMWA nevertheless urges EPA to be mindful of the fact that water infrastructure projects can be heavily dependent on manufactured technologies and equipment, both to achieve regulatory compliance and to advance innovative projects for water quality treatment, emissions reductions, resource recovery, and energy efficiency. Many of these specialized components are not produced domestically, so EPA should make the waiver process as simple and seamless as possible so that water systems are not impeded in their ability to quickly move ahead with infrastructure investments to benefit public health.

On January 3, AMWA and other water sector organizations asked EPA to grant the water sector a general applicability waiver based for manufactured products based upon the public interest criterion in section 70914(b)(1) of the BIL.⁴ This would reduce the risk of innovative approaches and utility system upgrades being slowed because of delays related to navigating the law's BABA requirements. AMWA and others in the water sector would welcome the opportunity to work with EPA to precisely identify these specialized water infrastructure products and components that are unavailable from domestic sources, and which therefore should be subject to a BABA waiver.

Fiscal Year 2023 appropriations

AMWA understands that this hearing is being held just one day after the Biden Administration's release of its budget request for the 2023 Fiscal Year. AMWA strongly supports funding several new and expanded EPA programs at their full levels authorized in the BIL. These include:

- \$2.75 billion for the Drinking Water SRF;
- \$50 million for the Water Infrastructure Finance and Innovation Act (WIFIA) program;
- \$100 million for Reducing Lead in Drinking Water grants;
- \$50 million for the Midsize and Large Drinking Water System Infrastructure Resilience and Sustainability Program;
- \$10 million for the Lead Inventorying Utilization Grant Pilot Program; and
- \$5 million for Water Infrastructure and Workforce Investment grants.

AMWA also urges Congress to provide permanent authorization and sufficient funding for EPA's new Rural and Low-Income Water Assistance Pilot Program, which will offer a limited number of grants to support municipal drinking water and wastewater affordability programs across the country. Just as there are long-established federal programs to help needy families meet nutritional needs and cover home heating costs, AMWA believes this new pilot program will demonstrate how the federal government can most effectively help qualifying households maintain essential water service.

⁴ <https://www.amwa.net/letter/letter-buy-america-mandates-infrastructure-investment-and-jobs-act>.

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Additional steps to protect drinking water quality

Beyond implementation of the BIL and the provision of robust appropriations in FY23, AMWA has several suggestions for steps Congress can take to help the nation's water systems continue to provide clean and safe drinking water.

First, while AMWA recognizes that the \$15 billion for lead remediation provided through the BIL represents a landmark investment, it will only pay for a fraction of the total cost of removing all lead service lines nationwide.⁵ Understanding that water systems will have to draw upon other resources to make progress toward this goal, earlier this month AMWA strongly endorsed the Financing Lead Out of Water (FLOW) Act when it was introduced by Rep. Dan Kildee as H.R. 6985. The legislation would streamline the ability of drinking water systems to pay for lead service line replacement projects using tax-exempt bond proceeds, without navigating burdensome red tape from the IRS.

This issue was brought to AMWA's attention last year by Denver Water, which was undertaking a project to fully replace all publicly and privately owned lead service lines in its service area, paid for by the utility with tax-exempt bonds. However, because the federal tax code imposes limitations on the amount of tax-exempt bond proceeds that can support improvements on private property, Denver Water had to document whether each property in the replacement program was a rental property, or the location of a home-based business. If such properties exceeded a certain threshold, Denver Water's bond issuance could no longer be tax-exempt – thus increasing financing costs for the utility's ratepayers. Denver Water successfully navigated this hurdle, but it added months of administrative work and expense to the project.

In response, the FLOW Act would allow community water systems to use tax-exempt financing for lead service line replacement projects, without going through this burdensome documentation process. Given the Biden Administration's well-publicized goal of eliminating lead service lines nationwide, this legislation would give water systems another tool in the toolbox to get the job done as quickly and efficiently as possible, especially when federal funding assistance is not available. AMWA strongly supports the FLOW Act and urges its passage as soon as possible.

AMWA also urges Congress to act on legislation to protect drinking water systems from incurring liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) related to the cleanup of PFAS that have been legally disposed of by the water system, after they are filtered out of source water supplies. The problem is that even if a water system follows all applicable laws in storing, transporting, and treating water containing PFAS, and properly disposes of PFAS retained in solids resulting from water treatment, and in media used in the treatment process, the utility and its ratepayers could still be held liable for environmental cleanup costs under CERCLA,

⁵ EPA estimates there to be as many as 10 million lead service lines across the U.S. (<https://www.epa.gov/ground-water-and-drinking-water/lead-service-line-replacement>), with an average replacement cost of approximately \$4,700 (https://www.epa.gov/sites/default/files/2019-10/documents/strategies_to_achieve_full_lead_service_line_replacement_10_09_19.pdf).

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should the disposal location ever be designated as facility subject to CERCLA.⁶ This would effectively require water system ratepayers to pay twice to clean up the PFAS pollution they did not cause – once when filtered out of the water, and again at the disposal site – thus shielding the actual polluters who are responsible for putting these contaminants into the environment in the first place.

This is particularly concerning for water systems because CERCLA liability is not only joint and several, but it is also strict, meaning that any one potentially responsible party (PRP) may be held liable for the entire cleanup of a site (when the harm caused by multiple parties cannot be separated), and a PRP cannot simply say that it was not negligent or that it was operating according to industry standards. Instead, under CERCLA if a PRP sent some amount of the hazardous substances found at the site, that party is liable.⁷ Therefore, a water system that sends any amount of PFAS to a site could be held responsible under CERCLA for the costs of cleaning up all the PFAS from that site, even if the majority of the site's pollution came from other sources.

Given these severe and potentially financially crippling consequences that would ultimately impact water system ratepayers, AMWA strongly believes that drinking water systems that have no choice but to remove PFAS from their source water supplies should be protected from CERCLA liability when they store, transport, and treat water containing PFAS from third party sources and then dispose of these water treatment byproducts containing PFAS. Just as Congress has explored CERCLA liability protections for airports that had no choice but to use firefighting foam containing PFAS, AMWA is eager to work with the committee on legislation that provides the necessary and appropriate scope of these liability protections for water systems as well.

Finally, AMWA reiterates its support for the contaminant regulatory process that Congress has required EPA to follow since enactment of the 1996 SDWA Amendments. This statute instructs EPA to rely on the best available peer-reviewed science and data collected by accepted methods to carry out a health risk reduction and cost analysis of regulatory options. Ultimately, any drinking water regulation finalized by EPA must present a meaningful opportunity for health risk reduction for persons served by public water systems, and must be developed following opportunities for stakeholder involvement. This ensures that ratepayer dollars spent on regulatory compliance are well spent and will result in public health improvements. While AMWA will always be open to discussing ways this regulatory process could be improved upon, we believe the current statute rests upon a strong foundation that appropriately considers economic and technological feasibility, including taking compliance costs, analytical capabilities, treatment options, and public health benefits into account.

AMWA thanks the subcommittee for the opportunity to submit these comments for the record of this important hearing. The association supported passage of the Bipartisan Infrastructure Law, and we are grateful for the hard work EPA has put into developing the implementation memorandum to begin

⁶ CERCLA liability is triggered if: (1) hazardous substances are present at a facility; (2) there is a release (or a possibility of a release) of these hazardous substances; (3) response costs have been or will be incurred; and (4) the defendant is a liable party. (<https://www.epa.gov/enforcement/superfund-liability>).

⁷ <https://www.epa.gov/enforcement/superfund-liability>.

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the process of distributing SRF funding to states. AMWA is eager to continue working with the agency and members of Congress on this topic, as well as other initiatives that will help Americans feel a greater level of confidence in the water that comes from their taps.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael Arceneaux', with a long horizontal flourish extending to the right.

Michael Arceneaux
Acting Chief Executive Officer

March 29, 2022

The Honorable Paul Tonko
Chairman
House Committee on Energy and Commerce
Subcommittee on Environment and Climate
Change

The Honorable David B. McKinley
Ranking Member
House Committee on Energy and Commerce
Subcommittee on Environment and Climate
Change

Dear Chairman Tonko and Ranking Member McKinley,

The undersigned trade associations who represent thousands of good paying American manufacturing jobs across the country, submit this letter for the record to make the Committee aware of a sensible solution that would help communities make the most of federal infrastructure resources: promoting an open and competitive bidding process for construction materials. Adopting this solution would provide state and local governments with more choices when it comes to selecting materials for infrastructure projects and help reduce project costs for communities.

There is broad recognition that America's transportation, energy, and water infrastructure is outdated and in need of repair or even replacement. The American Society of Civil Engineers (ASCE) gave a grade of "C-" to the nation's drinking water infrastructure and a "D+" to the nation's wastewater infrastructure. The resources needed to fix this problem are tremendous: ASCE estimates more than \$1 trillion¹ is needed to repair our water infrastructure system. It is imperative that we find a way to fund these projects in a financially responsible manner because a functioning water system is not only critical to our citizen's daily lives but also to the economic success of our country.

Outdated Requirements Slow Progress

The U.S. government provides major resources to help municipalities rebuild crumbling infrastructure. It's critical that this new construction incorporates innovative technologies and advanced materials, to produce sustainable and resilient infrastructure systems that will last for several generations.

Currently many municipalities have a closed or pre-determined bidding process that greatly limits the types of materials that can be considered for infrastructure projects. By taking many potential solutions off the table, these regulations have increased costs for projects and subsequently limited the number of water and sewer projects that can be completed.

Getting More for Less

The undersigned trade associations represent the leading companies engaged in the business of repairing our nation's crumbling infrastructure. Our members make the basic plastic resins used in polyvinyl chloride (PVC), polypropylene (PP), and high-density polyethylene (HDPE) pipes. We believe that the merits of a material should drive its use and no material should be automatically disqualified or given preferential treatment. We also make a variety of products

used in, or with every major type of water system, including water treatment chemicals, and materials to reduce iron pipe corrosion.

We believe that when state and federal funds are used to support infrastructure projects, then engineers should be allowed to consider all materials and select the best choice through an open competitive bidding process. Adopting such an approach will give engineers the authority to select the most effective and competitively priced option for their projects and help guarantee that government resources will be used wisely and go much further.

BCC Research undertook a detailed study of the water supply (force main) market and the stormwater conveyance pipe market (gravity feed) and found even within these two subcategories, \$20.6 billion and \$22.3 billion of pipe cost savings could potentially be realized by transitioning to wholly open competitive processes over a ten-year period. A study by the National Taxpayers Union estimates that open competition could save over \$371 billion on water infrastructure improvements more broadlyⁱⁱ.

Other policy groups such as the Brookings Instituteⁱⁱⁱ, US Conference of Mayors^{iv}, and the R Street Institute^v agree that adopting open-procurement practices will help communities make wiser choices and investments when it comes to repairing their water infrastructure.

Recommendation

We need reliable and safe water systems for our homes and businesses. Adopting legislation that promotes an open competitive bidding process would help make the most of investments in water infrastructure; increase government transparency; unleash the use of innovative, sustainable solutions; and increase the quality and long-term success of local infrastructure projects. All of which is good for communities, business, taxpayers and the country.

Congress can help stretch limited resources by ensuring all government funded infrastructure grant programs and procurement processes require open, competitive bidding procedures for all materials. All appropriations bills and infrastructure legislation should include language making this principle clear and central to the bidding process for materials.

Sincerely,
 American Chemistry Council
 International Association of Plastics Distribution
 Plastic Pipe and Fittings Association
 Plastics Industry Association
 Plastics Pipe Institute
 PVC Pipe Association
 Vinyl Institute

ⁱ American Society of Civil Engineers, [2021 Report Card for America's Infrastructure](#)

ⁱⁱ National Taxpayers Union, [Reforming Our Nation's Approach To The Infrastructure Crisis: How Competition, Oversight, and Innovation Can Lower Water and Sewer Rates in the U.S.](#), April 2013

ⁱⁱⁱ The Brookings Institute: [Four Ways to Make Wiser Infrastructure Investments](#)

^{iv} US Conference of Mayors: [Municipal Procurement: Competitive Bidding for Pipes Demonstrates Significant Local Cost-Savings](#)

^v R Street Institute: [R Sheet on Water Infrastructure Procurement](#)

*City of Newark, NJ
Tuesday, May 11, 2021*

Chapter 16:23. Mandatory Replacement of Lead Service Line

§ 16:23-1. Definitions.

[Ord. 6PSF-M, 9-18-2019]
For the purposes of this Chapter:

CITY

Shall mean the City of Newark.

CONTRACTOR

Shall mean a licensed vendor that contracts with the City of Newark to replace lead service lines.

DEPARTMENT

Shall mean the Department of Water and Sewer Utilities of the City of Newark, New Jersey.

DWELLING

Shall mean a building or structure or part thereof containing one or more dwelling units. This chapter shall also apply to buildings and structures that are not used for residential purposes.

DWELLING UNIT

Shall mean any room or groups of rooms or any part thereof located within a building and forming a single habitable unit with facilities which are used or designed to be used for living, sleeping, cooking, eating or bathing.

LEAD SAFE

Shall mean any condition that does not allow access or exposure to lead, in any form, to the extent that adverse human health effects are possible.

LEAD SERVICE LINE

Shall mean the water line on private property that leads to the structure or building that is connected to the main City of Newark water line.

OCCUPANT

Shall mean a person or persons in actual possession of and living in the building or dwelling unit.

OWNER

Shall mean any person who has legal title to any dwelling, with or without accompanying actual possession thereof; or, who has equitable title and is either in actual possession or collects rents therefrom; or, who is executor, executrix, trustee, guardian, or receiver of the estate of the owner, or as mortgagee or as vendee in possession either by virtue of a Court order or by agreement or

voluntary surrender of the premises by the person holding the legal title, or as collector of rents has charge, care or control of any dwelling or rooming house.

§ 16:23-2. Lead Service Lines Prohibited.

[Ord. 6PSF-M, 9-18-2019]

It is hereby established that the existence of lead service lines is prohibited in the City of Newark.

§ 16:23-3. Exclusion from Requirement; Proof Required.

[Ord. 6PSF-M, 9-18-2019]

A property owner may be excluded from the Mandatory Replacement of its lead service line by providing the Department of Water and Sewer Utilities, within 90 days of the effective date of this ordinance, with written proof from a licensed and certified plumber that it does not have a lead service line on its property and/or that the lead service line was previously removed and replaced.

§ 16:23-4. Mandatory Replacement of Lead Service Line.

[Ord. 6PSF-M, 9-18-2019]

- a. The owner of any dwelling, building or structure serviced by a lead service line is required to replace the lead service line on their property. The replacement of the lead service line must be completed within 90 days of the effective date of this ordinance. An extension of time may be granted where the owner can demonstrate, to the Department of Water and Sewer Utilities designee, that a good faith effort has been made to comply with the ordinance.
- b. The owner of the any dwelling, building or structure shall replace their lead service line by any of the following methods:
 1. Signing up for the Lead Service Line Replacement Program offered by the City of Newark and allowing contractors to access on their property to conduct the replacement. The Contractor will provide the owner with a Right of Entry form for completion. The Right of Entry form will provide the contractor with access to the property to verify the existence of a lead service line; or
 2. Replacing the lead service line on their own and at their own expense. If an owner selects this option, then replacement must be completed within 90 days of effective date of this ordinance. An extension of time may be granted where the owner can demonstrate, to the Department of Water and Sewer Utilities designee, that a good faith effort has been made to comply with the ordinance. An owner is required to provide the Department of Water and Sewer Utilities with proof that the lead service line has been replaced. Proof must include at a minimum: a permit issued by the Department of Water and Sewer Utilities to a licensed plumber authorized to do the work; an invoice from the contractor who completed the work; a copy of the estimate along with any report of the work completed, and an inspection report verifying the removal.

§ 16:23-5. Authorization to Access Property.

[Ord. 6PSF-M, 9-18-2019]

- a. Notwithstanding Section 16:23-4, if an owner of the dwelling, building or structure does not sign up for the Lead Service Line Replacement Program or does not replace its lead service line within 90 days of the effective date of this ordinance (or within the time frame provided in an extension) or is inaccessible or otherwise denies access to the property to enable the replacement of the line, then the following procedure shall be followed:
1. The City shall secure entrance to the property from the owner or current occupant of the dwelling, building or structure, and the City shall incur no liability from the owner. The contractor will provide the owner with a Right of Entry form for completion. The Right of Entry form will provide the Contractor with access to the property to verify the existence of a lead service line. The City shall restore the property to its original condition, or as close as possible to its original condition; and
 2. If access is granted by the occupant of the dwelling, building, or structure, then the occupant shall be held harmless and no liability shall incur to the City or occupant due to the replacement of the lead service line by the City of Newark; and
 3. If access is denied by the current occupant or owner, then the City shall commence procedures, including filing a Court action, to conduct the replacement of the lead service line.

§ 16:23-6. Proof of Lead Service Line Replacement Required for Certificate of Occupancy, Certificate of Code Compliance, and Smoke & Carbon Monoxide Detector Certificates.

[Ord. 6PSF-M, 9-18-2019]

- a. Upon the sale or transfer of ownership of any dwelling, building or structure, the owner must provide proof that the lead service line has been replaced in order to secure a Certificate of Occupancy, Certificate of Code Compliance, and Smoke & Carbon Monoxide Detector Certificates.
- b. Upon the sale of any City-owned property, within 90 days of the closing, the buyer is responsible for replacing the lead service line, by either enrolling in the Lead Service Line Replacement Program or in accordance with 16:23-4b, 2 above.

§ 16:23-7. Penalty.

[Ord. 6PSF-M, 9-18-2019]

Violations of this Chapter by any person or corporation shall be punishable by a fine of at least \$250 but not exceeding \$1,000 or by imprisonment for a term not exceeding 90 days or by a period of community service not to exceed 90 days.

 ▼



PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

State of New Jersey
Department of Environmental Protection
Mail Code 401-04Q
Division of Water Supply & Geoscience
Water System Operations Element
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<https://www.nj.gov/dep/watersupply/>

SHAWN M. LATOURETTE
Commissioner

Letter sent via e-mail (adeemk@ci.newark.nj.us)

August 23, 2021

Kareem Adeem
Newark Water Department
920 Broad St, Rm B31-F
Newark, NJ 07102

Re: Newark Water Department - PWSID: NJ0714001
Final CCT Effectiveness Report – Additional Information Required
Letter No. WTA190001

Dear Kareem Adeem:

On April 25, 2019, the Bureau approved Newark's Corrosion Control Treatment (CCT) Recommendation (CCTR) and issued a Temporary Treatment Approval (TTA) for the Pequannock gradient.

The approved CCTR was, in the short term, for the addition of zinc orthophosphate to the existing treatment of pH adjustment and sodium silicate and, in the longer term, to eventually terminate the use of sodium silicate while continuing zinc orthophosphate and pH adjustment.

Permit condition seven (7) of the Bureau's April 25, 2019 TTA required the submission of a report detailing "whether the zinc orthophosphate effectively optimizes corrosion control." The required report was granted extensions of time in Bureau letters dated May 4, 2020 and April 28, 2021 and was thus due on May 17, 2021. The Bureau of Water System Engineering (Bureau) is in timely receipt of Newark Water Department's (Newark) Final CCT Effectiveness Evaluation and Pipe Loop Study Results dated May 17, 2021 (Report).

The Report contained information on the pipe loop study and other analysis completed in the Pequannock Distribution System, including but not limited to, sequential sampling, pipe scale analysis, and lead and copper sampling as required by the testing plan approved by the Bureau on August 27, 2019, pursuant to paragraph (10) of the TTA. The Report analyzed CCT effectiveness and specifically evaluated both (1) zinc orthophosphate, pH adjustment, and sodium silicate and (2) just zinc orthophosphate and pH adjustment with no sodium silicate. The Bureau's Pipe Loop Study Overview letter dated August 27, 2019 set forth the goal of an effective and stable phosphate-based scale in the pipe loop study on all lead-bearing materials.

After review of all data and analysis submitted in the Report, the Bureau provides the following comments:

1. Newark's current corrosion control treatment, zinc-orthophosphate, pH adjustment, and sodium silicate, appears to be effective against lead release in lead service lines.

2. The removal of sodium silicate in the pipe loop study did not appear to impact lead release in lead service lines.
3. Newark's current corrosion control treatment, zinc-orthophosphate, pH adjustment, and sodium silicate, produced inconclusive total lead results from the pipe loop study against lead release from copper pipe with lead solder. Total lead results from copper pipe with lead solder remained inconclusive after the removal of sodium silicate.
4. It should be noted that both Newark and the Bureau are awaiting pipe scale analysis results from pipes in the pipe loop study and in the Pequannock Distribution System. Therefore, based on the results of the analysis, the Bureau reserves the right under 40 C.F.R. §141.82(h) to modify its evaluation of the optimal corrosion control treatment.

In light of (3) above, Newark shall submit, for Bureau review and approval, a supplemental report including additional data and/or analysis which provides conclusive evidence that the corrosion control treatment, both before and after the removal of sodium silicate, is effective for controlling lead release from copper pipe with lead solder and associated domestic plumbing in Newark's Pequannock Distribution System. This supplemental report shall be submitted by August 31, 2021 or Newark shall provide a schedule of completion.

At this time, Newark does not have Bureau approval for discontinuing the sodium silicate feed at the Pequannock Treatment Plant.

Based on the results of corrosion control treatment effectiveness against lead release in lead service lines, the Bureau hereby approves the discontinuance of the lead service line pipe loops in the pipe loop study. These include pipe loops 1-3 in pipe rack 1, pipe loops 5-7 in pipe rack 2, and pipe loops 9-11 in pipe rack 3.

If you have any questions, contact Matthew Peters at Matthew.Peters@dep.nj.gov. When contacting the Bureau please reference the PWSID No. NJ0714001 and Letter No. WTA190001.

Sincerely,



Steven Pudney, C.Eng., MICE
Section Chief - Engineering
Bureau of Water System Engineering

C (via e-mail):

Don Hirsch, Bureau Chief, Northern Bureau of Water Compliance and Enforcement
Sandra Kutzing, P.E., CDM Smith
Jerry Notte, P.E., Licensed Operator
Tiffany M. Stewart, Esq., Newark Department of Water and Sewer Utilities
Syed Rizvi, BWSE – Engineering
Matthew Peters, BWSE – Engineering
Kristin Tedesco, Bureau Chief, BWSE - Engineering
Sam DiMeglio, BSDW – Compliance Assistance Section

NJEMS\Final_Report_Additional_Info.

Parkersburg Utility Board
Inventory cost analysis
03/24/2022

from Eric Dammett

12-203	6" PVC Pipe - SDR 35/ft
01/10/2022	\$4.95
09/02/2021	\$4.50
03/30/2021	\$3.47
10/09/2020	\$2.88
03/04/2020	\$2.40
08/29/2019	\$1.96
\$ Increase	\$2.99
% Increase	152.55%

12-204	8" PVC Pipe - SDR 35/ft
01/10/2022	\$11.00
09/02/2021	\$8.00
03/30/2021	\$5.60
10/09/2020	\$4.66
01/06/2020	\$3.69
08/29/2019	\$3.54
\$ Increase	\$7.46
% Increase	210.73%

12-425	Lateral Resin, Part A/ bckt
01/18/2022	\$406.98
08/06/2021	\$399.00
06/01/2021	\$462.50
02/19/2021	\$344.99
12/18/2020	\$344.99
09/12/2018	\$332.61
\$ Increase	\$74.37
% Increase	22.36%

12-429	8" Inversion Liner/ft
08/06/2021	\$11.75
09/15/2020	\$9.69
03/24/2020	\$9.11
09/12/2018	\$9.11
\$ Increase	\$2.64
% Increase	29.01%

50-100	Unleaded Gasoline
03/11/2022	\$3.17
02/10/2022	\$2.54
01/14/2022	\$2.32
12/21/2021	\$2.38
\$ Increase	\$0.78
% Increase	32.86%

50-200	Diesel Fuel
03/04/2022	\$3.78
02/10/2022	\$2.98
01/14/2022	\$2.69
12/21/2021	\$2.42
\$ Increase	\$1.36
% Increase	56.46%

Parkersburg Utility Board
Inventory cost analysis
03/24/2022

72-331.1	Repair Clamp - 6" x 12"
03/03/2022	\$166.51
03/12/2021	\$131.44
10/16/2020	\$119.75
10/22/2019	\$88.25
\$ Increase	\$78.26
% Increase	88.68%

72-450.1	3/4" Copper Tube/ft
03/11/2022	\$7.42
07/09/2021	\$6.56
11/24/2020	\$4.64
04/08/2020	\$3.83
08/15/2019	\$3.35
\$ Increase	\$4.07
% Increase	121.49%

72-457	6" PVC Pipe C900/ft
09/03/2021	\$15.22
03/23/2021	\$7.79
08/08/2018	\$5.71
\$ Increase	\$9.51
% Increase	166.55%

72-280	Coppersetter - 5/8" x 3/4" x12"
03/11/2022	\$252.02
12/27/2021	\$232.10
03/12/2021	\$215.47
02/11/2020	\$159.00
04/17/2019	\$144.48
\$ Increase	\$107.54
% Increase	74.43%

72-604	Fire Hydrant - 5' bury
11/15/2021	\$2,173.67
12/14/2020	\$1,708.95
06/18/2019	\$1,655.00
\$ Increase	\$518.67
% Increase	31.34%

72-159	Limestone, Blend/ton
01/04/2022	\$22.50
07/24/2020	\$20.50
05/27/2020	\$17.75
\$ Increase	\$4.75
% Increase	26.76%



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JUN 30 2021

THE ADMINISTRATOR

Dear Chemical Sector Partners:

Ensuring that drinking water and wastewater services are fully operational is critical to protecting our nation's public health and environment, as well as maintaining a functioning economy. I would like to request that chemical manufacturers and suppliers prioritize drinking water and wastewater systems as customers of critical water-treatment chemicals, such as gaseous chlorine, sodium hypochlorite and calcium hypochlorite.

This request is a result of concerning challenges that some water systems have recently experienced in procuring gaseous chlorine, sodium hypochlorite and calcium hypochlorite. Several water utilities across multiple states – California, Idaho, Illinois, Indiana, New York, Oregon and Washington – have received *force majeure* notifications, even reducing chlorine allocations in some cases, from suppliers due to supply shortages across the industry. While drinking water and wastewater disinfection accounts for less than 5 percent of all chlorine consumed in the United States, this usage is vital to ensuring the health and well-being of our citizens and businesses.

If drinking water systems cannot obtain a sufficient and reliable supply of gaseous chlorine, sodium hypochlorite and calcium hypochlorite, they will be unable continue to provide safe drinking water to their communities. Similarly, if wastewater systems lack adequate chlorine supplies, they will be unable to disinfect treated wastewater prior to discharge to surface waters, potentially leading to an increase in the concentration of pathogens in the surface water. A loss of drinking water or wastewater services, even for short durations, would have cascading impacts on hospitals, manufacturing, government facilities, private offices and restaurants – essentially all of the critical services necessary to sustain a community.

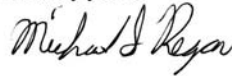
By prioritizing delivery of chlorine and other critical water treatment chemicals to drinking water and wastewater systems and the retail vendors that sell chlorine to these systems, you can help to ensure the uninterrupted supply of safe drinking water and treatment of wastewater across the nation.

I also request that we maintain open lines of communication between the water and chemical sectors so that we can collectively maintain situational awareness of threats to the water treatment chemical supply chain. This awareness is particularly important as we enter what is forecast to be an active hurricane season with the potential to impact chemical manufacturers in states along the Gulf and Atlantic coasts.

The chemical sector is a key partner in the treatment of water and, therefore, in the protection of public health and the environment. My U.S. Environmental Protection Agency colleagues and I are committed to working with you to support our nation's public health and economic viability.

Please do not hesitate to contact me, or your staff may contact Jennifer McLain, director of the Office of Ground Water and Drinking Water, at mclain.jennifer@epa.gov or (202) 564-4029.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael S. Regan". The signature is fluid and cursive, with the first name "Michael" and last name "Regan" clearly distinguishable.

Michael S. Regan

Mr. Erik D. Olson
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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**

Mr. Erik D. Olson, Senior Strategic Director for Health & Food, Natural Resources Defense Council

The Honorable John P. Sarbanes (D-MD)

1. In order to make sure that the State Revolving Fund (SRF) funding appropriated through the Infrastructure and Jobs Act (IIJA) serve the communities most in need of water infrastructure funding – including the disadvantaged communities that are considered part of larger, urban water systems that would not considered disadvantaged on average – how should states redefine their definition of disadvantaged when distributing these funds?

RESPONSE:

We agree with EPA’s March 8, 2022 Bipartisan Infrastructure Law Implementation Memo¹ which states (at page 40) that “Examples of criteria within affordability and disadvantaged community definitions that can be barriers include...[d]efinitions based solely on population or definitions that include population as a determining factor. EPA strongly encourages states to amend their affordability and disadvantaged community definitions if they currently utilize any of these...criteria.” The agency further pointed out with apparent approval that “some states define a disadvantaged community to include a large public water system where a particular project within the system addresses a sub-set of the service area that meets affordability criteria.” *Ibid* at 42. Overall, the agency made several recommendations to states (*ibid* at 40-43) that would help ensure that SRF funding appropriated through the Bipartisan Infrastructure Law will serve communities most in need of infrastructure funding. In our view, this must include disadvantaged communities that are part of larger water systems whose residents may not be considered “disadvantaged” on average, but where a portion of the population served is disadvantaged by any fair definition of that term. We strongly agree that a project—such as, for example, a lead service line replacement project—that is targeted to help a significant population of low-income people within a city should qualify for SRF grant or forgivable loan funds as disadvantaged community, even if the residents served by the water system as a whole would not be considered to be disadvantaged on average.

¹ Available at https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf

Ms. Lori J. Mathieu
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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

Ms. Lori J. Mathieu
Page 2

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

Ms. Lori J. Mathieu
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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>

Ms. Lori J. Mathieu
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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?

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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 “pigtails”), 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.

Ms. Lori J. Mathieu
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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

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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

Ms. Lori J. Mathieu
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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.

Mr. Kareem Adeem
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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**

Mr. Kareem Adeem, Director of Water and Sewer Utilities, City of Newark, New Jersey

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: In New Jersey we share much of the same oceanfront and bayfront topography and conditions as Delaware and both states suffered fatalities and devastating loss of property from hurricanes Irene, Sandy, and Isaia in the last 12 years. Flooding from rainfall and tidal surges have swamped water and sewage treatment plants, forcing boil water mandates after storms. With sea levels rising and the intensity of storms becoming more powerful, the infrastructure bill can help fund these costly but important flood mitigation projects.

For cities like Newark that draw from outdoors reservoirs the growing intensity of storms is real problem. Inundating rains create more runoff, more sediment, and natural bacteria to increase the turbidity of our water supply. The infrastructure bill could help cities purchase more land around reservoirs to act as natural filters and help them improve their water quality monitoring systems. In Newark we have state-of-the-art analytics and artificial intelligence monitoring and reporting controls. We are also introducing a Dissolved Air Flotation to better scrub impurities our drinking water sources. All of this is costly and money from the Bipartisan Infrastructure Law could help cities expand their technologies.

- 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?

Mr. Kareem Adeem
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RESPONSE: As stated, most urban cities areas draw from outdoor reservoirs and more intense rainfalls and drought put environmentally disadvantaged communities at greater risk. Additionally, rising seas levels and magnified storms create flooding hazards and potential raw sewage spill overs into streets and even some water treatment plants. I've enclosed the link to long-term flood mitigation plans for the Newark metro area with a estimated \$4 billion price tag. This is an investment in the health and safety of our people and their property and may curtail FEMA payouts in the future. Certainly, Bipartisan Infrastructure money would be welcomed to defray costs.

https://www.nj.gov/dep/dwq/pdf/CSO_SIAR_PVSC_20201001.pdf

Mr. Richard Diaz
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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**

Mr. Richard Diaz, Midwest Regional Field Organizer, BlueGreen Alliance

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

1. In your testimony, you highlighted how the water infrastructure investments made by the Bipartisan Infrastructure Law (BIL) will benefit the construction industry by increasing employment opportunities for workers across the United States. These investments are going to facilitate critical drinking water infrastructure upgrades, but not without the workforce to actually get the work done.

- a. **What role should apprenticeships play in developing a strong, accessible workforce to carry out water infrastructure projects that will be funded by BIL?**

RESPONSE:

Apprenticeships and pre-apprenticeships are key to ensuring that water infrastructure investment creates not just good jobs, but accessible, good union jobs. Workforce funding included in the Bipartisan Infrastructure Law (BIL) will support existing union training and apprenticeship programs. For example, the United Association of Union Plumbers and Pipefitters (UA) has dozens of training centers across the country. One of these training centers, run by Plumbers Local 5 and located just outside Washington D.C., has been training apprentices since 1940. Another example is the Utility Workers Union (UWUA)’s “Power for America Training Trust Fund” which provides critical training that helps ensure workers and employers in high-hazard industries maintain safety and worker protection in the workplace. Well-trained workers are safer workers and, in turn, are better equipped to ensure communities receive the best possible service.

- b. **Considering a portion of the BIL funding will revolve and therefore be available after the 5 years, how will these apprenticeships help to build a sustainable workforce to support the water sector for years to come?**

RESPONSE:

Mr. Richard Diaz
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The water infrastructure investments made in the BIL will increase jobs in the construction industry, which has a long history of apprenticeship and pre-apprenticeship utilization. For example, the plumbing, pipefitting, and steamfitting industry currently employs 324,500 workers and is expected to see job growth around 15.6% through 2026.ⁱ Similar job growth will occur in other water infrastructure jobs. For example, pipelayers will see a 17.2% increase above the current 33,810 jobs, and other related jobs will see an 18.6% increase.ⁱⁱ

BIL water infrastructure investments will also accelerate job growth in every sector of the economy. This means increased numbers of steelworkers, utility workers, painters, laborers, operating engineers, electricians, public sector employees, and other union workers to manufacture, maintain, upgrade, and operate these systems. We need steelworkers to manufacture the pipes, painters to apply the industrial coatings that protect water infrastructure from corrosion, plumbers and pipefitters to replace lead service lines, and utility workers to ensure that drinking water is clean and wastewater is treated and made safe for the public and the environment. We have to make sure these are not just good jobs, but *accessible* jobs. BIL funding will help support and grow pathways into good union jobs—often through apprenticeships and pre-apprenticeships—in these and other sectors for workers of color and other segments of the population historically underrepresented in these jobs.

Challenges still remain in recruiting, training, and retaining workers in the water sector—one-third of the water sector workforce is eligible for retirement in the next decade.ⁱⁱⁱ Additionally, roughly 85% of water workers are male and two-thirds are white.^{iv} There is clearly a need for younger, more diverse workers. This is especially crucial if the communities most impacted by failing water infrastructure are to see the full benefits of the jobs created by BIL funding. The BIL addresses by directing EPA to establish an interagency working group and reauthorizing and expanding the Innovative Water Infrastructure Workforce Development Grant Program. Both of these actions are intended to address recruitment, training, and retention of the water sector workforce.

c. In developing that workforce and promoting American manufacturing, how important are BIL's Build America Buy America (BABA) provisions?

RESPONSE:

The investments included in the BIL will be significant job creators not just at project sites across the nation, but—thanks to strong domestic procurement policy—will also support American manufacturing. Infrastructure projects in particular are massive undertakings requiring huge amounts of building materials

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like iron, steel, and concrete. These are materials that have been manufactured in the United States for decades and longer, but—due in part to misguided trade policy and a lack of adequate industrial policy—these industries have taken a hit as global competition has grown. It is critical that the taxpayer dollars being used to fund the historic investments in these two bills are used in ways that support American manufacturing and workers and communities here at home. This can be accomplished through strong domestic procurement policies such as those embedded in the Drinking and Clean Water State Revolving Funds and found in EPA’s implementation guidance.^v The BIL also permanently extended Buy America for funding distributed from the Drinking Water SRF, making it equivalent with Clean Water SRF policy.

Buy America domestic procurement requirements have a long-standing history of maximizing the return on investment to taxpayers and our economy. Requiring domestic content in infrastructure projects boosts domestic workers and manufacturers, and creates broad economic growth while spurring domestic manufacturing. According to the Alliance for American Manufacturing, Buy America provisions lead to a 33% increase in manufacturing jobs per dollar of public spending.^{vi} A GAO report found that water projects subject to Buy America provisions in the American Recovery and Reinvestment Act of 2009 were lower in cost than estimated.^{vii}

One example of how American manufacturing and workers directly benefit from Buy America can be found at McWane Ductile Pipe in Coshocton, Ohio. At this facility, members of United Steelworkers Local 7014 produce ductile iron pipe used in water infrastructure. Buy America helps keep this facility open and provides the foundation for more good union jobs in decades to come.

The BIL also includes a significant expansion and modernization of Buy America called “Build America, Buy America” (BABA). Buy America requirements already extended to public-works transportation and water-related infrastructure. BABA will expand the application of Buy America preferences to nearly all infrastructure programs and projects, and will ensure that Buy America is applied more consistently and with fewer waivers, which will not only create more opportunities for American workers to benefit from federal infrastructure investments, but will improve the efficiency with which these preferences are applied.

This expansion of Buy America is also an excellent step forward in our fight against climate change. A [recent report](#)^{viii} authored by Global Efficiency Intelligence compares major steel producing countries on the basis of carbon intensity and finds the United States to be among the cleanest steel producing nations. These requirements will bring an increased demand for domestically-produced infrastructure materials, which U.S. produces – or has the capacity to produce – in more efficient, less polluting ways than many of the countries we currently import such goods from. An expanded Buy America coupled with a new

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federal Buy Clean Initiative^{ix} that prioritizes transparency, invests in innovation, and ties our public dollars to low-carbon materials holds the promise of transforming some of the most heavy-emitting sectors in our economy, allowing us to lead by example on climate action, environmental justice, the creation of good jobs, and strengthening our globally-competitive domestic manufacturing sectors.

ⁱ Bureau of Labor Statistics, "The employment outlook for occupations tasked with building America's infrastructure," 2018. Available online: https://www.bls.gov/opub/btm/volume-7/the-employment-outlook-for-occupations-tasked-with-building-americas-infrastructure.htm?view_full

ⁱⁱ Brookings, *Metropolitan Policy Program, Renewing the Water Workforce*, June 2018. Available online: <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf>

ⁱⁱⁱ Environmental Protection Agency, *Water Sector Workforce*. Available online: <https://www.epa.gov/sustainable-water-infrastructure/water-sector-workforce>

^{iv} Brookings, *Metropolitan Policy Program, Renewing the Water Workforce*, June 2018. Available online: <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf>

^v Environmental Protection Agency, "Memorandum: Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law," March 2022. Available online: https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf

^{vi} Alliance for American Manufacturing, *How Infrastructure Investments Support the U.S. Economy: Employment, Productivity, and Growth*. January 2009. Available at http://s3-us-west-2.amazonaws.com/aamweb/uploads/research-pdf/Infrastructure_2009.pdf

^{vii} GAO, *Clean Water Projects Are Underway, but Procedures May Not Be in Place to Ensure Adequate Oversight*. May 2010. Available at: <https://www.gao.gov/assets/130/124764.pdf>

^{viii} Global Efficiency Intelligence, *Steel Climate Impact An International Benchmarking of Energy and CO2 Intensities*, April 2022. Available online: <https://www.globalefficiencyintel.com/steel-climate-impact-international-benchmarking-energy-co2-intensities>

^{ix} The White House, Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, December 8, 2021. Available online: <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/12/08/executive-order-on-catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability/>

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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**

Mr. Jim McGoff, Chief Operating Officer and Director of Environmental Programs, Indiana
Finance Authority, *On behalf of* the Council of Infrastructure Financing Authorities

The Honorable Cathy McMorris Rodgers (R-WA)

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

RESPONSE: Yes. The Infrastructure Investment and Jobs Act (IIJA) has several unfunded mandates on States and borrowers of the Drinking Water State Revolving Funds (SRFs). While well-intentioned, federal mandates increase the cost of water infrastructure, which disproportionately impacts small, rural and disadvantaged communities that can least afford it and have few, if any, other options for affordable financing. Federal mandates also threaten the long-term financial integrity of the SRFs.

Domestic Preference Procurement Requirements: The IIJA includes the Build America Buy America Act (BABA), which establishes domestic preference procurement requirements for iron, steel, construction materials, and manufactured products. Under the law, borrowers of the Drinking Water SRFs must demonstrate compliance with procurement rules established by The White House Office of Management and Budget Made in America Office and the U.S. Environmental Protection Agency (EPA).

Until EPA provides final implementation guidance for BABA, the full cost of compliance with these mandates remains unknown. However, SRFs are concerned that the cost of compliance could erase the savings provided by subsidized loans, which would exacerbate affordability for ratepayers and deter participation in the program.

Mandated Additional Subsidy: The IIJA includes the Drinking Water and Wastewater Infrastructure Act, which mandates that Drinking Water SRFs give

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away 12% of the annual capitalization grant as additional subsidy to disadvantaged communities – doubling the previous mandate in the Safe Drinking Water Act. The IIJA also mandates that Drinking Water SRFs give away 49% of annual supplemental capitalization grants as additional subsidy.

Mandated additional subsidy permanently eliminates a recurring source of revenue to meet future needs for water infrastructure, which places a greater financial burden on generations to come.

2. 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: SRFs are concerned that EPA’s new Oversight Guidance for Intended Use Plans (IUPs) may be used to pressure States to change their programs in order to gain approval of their capitalization grant application for funding provided by Congress in the IIJA. A copy of the new guidance is attached in Appendix A.

The Oversight Guidance establishes an evaluation checklist with 28 measures, including six based on statutory requirements and 22 based on EPA’s recommendations to meet Administration priorities, referred to as “best practices.” The Oversight Guidance is designed to “engage states on EPA’s expectations for implementing BIL funding programs and their plan for meeting those expectations” and to encourage States to integrate “these priorities into their base SRF program.”

The Oversight Guidance identifies 11 priority measures, including all statutory requirements and five priorities of the Biden-Harris Administration. If an IUP doesn’t comply with one or more of these measures, EPA Regions are required to send the capitalization grant application to EPA Headquarters for further review.

Changes to the process are also a concern. Some EPA Regions provided the new guidance to SRFs, while others didn’t share the guidance until asked. Typically, SRFs provide a draft IUP to EPA when it’s posted for public comment. Now, EPA has asked SRFs to provide a draft IUP *before* it’s posted for public comment.

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Some SRFs have already applied for a capitalization grant for the supplemental funding in the IJA, but the review process has only just begun.

- 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: Based on the SRF Implementation Memo and Oversight Guidance, EPA expects SRFs to change the affordability criteria to significantly expand eligibility for additional subsidy, which is the part of an SRF loan that doesn't need to be repaid and comes in the form of grants or principal forgiveness.

SRFs are committed to helping communities that can't afford to pay for infrastructure to provide safe, reliable drinking water. However, SRFs are concerned about the unintended consequences of watering down the affordability criteria for additional subsidy, especially when so many communities meet the existing criteria. As one SRF manager said, "If *all* water systems are disadvantaged, then *no* water systems are disadvantaged, and funding won't be prioritized for the *most* disadvantaged who truly can't afford safe drinking water without a grant or principal forgiveness."

Additionally, SRFs are concerned about compliance with the Safe Drinking Water Act, which clearly requires the affordability criteria to be based on the entire service area of a water system, not pockets of poverty within a community.

- 3. One of the major criteria for the drinking water state revolving loan fund is that recipients need to be able to demonstrate the technical, managerial, and financial capacity to operate their systems.

- a. I know this is a sensitive issue, but with so much mandatory loan subsidization and principal forgiveness being required by the IJA and EPA's memo, are we creating a conflict between these requirements and the intent and interpretation of IJA?

RESPONSE: Requiring water systems to demonstrate technical, managerial and financial capacity is essential for protecting public health, as well as ensuring taxpayer investments in water infrastructure can be operated and maintained.

- b. If yes, what systems would suffer the most?

RESPONSE: Many SRFs work with potential borrowers to help them develop the technical, managerial, and financial capacity to safely run their water system as well as qualify for an SRF subsidized loan, which is often accompanied by

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significant additional subsidy. Without this requirement, some water systems wouldn't otherwise develop the operational capacity needed to provide safe drinking water to their community.

- c. Are there other conflicts between IIJA and SDWA that complicate implementation of either one?

RESPONSE: Providing safe drinking water is the priority. However, ensuring water infrastructure projects provide a sustainable solution is also critically important. In the long term, communities are not helped by building water infrastructure that can't be operated and maintained with affordable user rates.

- 4. EPA's Implementation Memo takes pains to claim that it is giving the States lots of flexibility to implement the provisions within IIJA. Yet, some are suggesting that these statements oversell the amounts and types of flexibility provided.

COMMENT: The flexibility summarized in EPA's SRF Implementation Memo was established in the Safe Drinking Water Act. With the exception of federal mandates for additional subsidy and Build America, Buy America, the IIJA didn't expand flexibilities or impose new restrictions on the Drinking Water SRF.

- a. What are the areas where CIFA members really need flexibility, but EPA is not suggesting they have it?

RESPONSE: The Drinking Water SRFs need more flexibility to effectively and efficiently implement programs to replace lead service lines.

Lead Water Mains: Replacement of lead water mains is eligible under the base program but isn't eligible for funding dedicated to lead service line replacement.

Providing SRFs with the ability to fund replacement of lead water mains with dedicated funding for lead service line replacement will maximize the use of federal funding. Replacing lead water mains at the same time lead service lines are replaced is the most effective and efficient way to mitigate lead in drinking water.

Additional Subsidy: While well-intentioned, restricting the use of additional subsidy to communities that meet affordability criteria is counterproductive. In particular, this restriction on lead service line replacement is further complicated by EPA's expectation that "projects on the IUP fully pay for both public and private [lead service lines]" (EPA Oversight Guidance for Intended Use Plans #12).

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Providing the SRFs with the flexibility to use additional subsidy for any eligible project ensures protection for public health remains the priority. Moreover, providing this flexibility for lead service line replacement will accelerate the development and implementation of these challenging and complex projects. Because replacing lead service lines is a one-time project that provides significant health benefits, allowing the use of additional subsidy for projects in any community will more quickly eradicate this serious threat to public health.

Set-Asides for Lead Service Line Inventories: Some SRFs want to use set-asides to pay 100% of the cost of lead service line inventories to identify projects for lead service line replacement. However, SRFs can't access funding for set-asides without providing a complete Project Priority List. As a result, some SRFs are using set-asides from the base program to build a project pipeline for the funding dedicated to lead service line replacement, which is displacing other projects to improve, rehabilitate and replace aging water infrastructure.

Providing SRFs with the flexibility to access funding for set-asides to conduct inventories would help build the project pipeline for lead service line replacement projects.

Conditional approval of a capitalization grant may allow access to set-asides, but additional guidance is needed to provide clarity and certainty to the process. Also, SRFs need additional guidance that clearly explains how each set-aside can be used to pay for inventories, particularly the set-asides for capacity development and source water projects.

CIFA believes additional flexibility for lead service line replacement and remediation of emerging contaminants is needed but may require changes to the law.

Additional Subsidy: Providing the Drinking Water SRFs with the flexibility to use up to 100% of their capitalization grant for additional subsidy for lead service line replacement will accelerate the development of a project pipeline for these challenging and complex projects. Providing the Drinking Water SRFs with the flexibility to use additional subsidy for any eligible recipient, instead of limiting to disadvantaged communities, will also accelerate these critical public health projects.

Statewide Initiatives: Providing Drinking Water SRFs with the flexibility to implement statewide strategies for lead service line replacement and emerging contaminants will allow SRFs to fully scope the breadth of these challenges so they can be addressed appropriately by Congress.

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Developing successful statewide approaches would require relief from a requirement in the Safe Drinking Water Act that financial assistance be provided through an assistance agreement with a water system or utility. While this works exceedingly well for projects to improve, rehabilitate or replace aging infrastructure, this requirement limits the ability of an SRF to implement more effective and efficient statewide strategies for special category funding, such as to conduct inventories for lead service lines or remediate emerging contaminants.

- b. Why is flexibility in these areas very important to CIFA members?

RESPONSE: SRFs understand the tremendous need for water infrastructure financing and want to make the most of the funding provided by Congress to address these challenges. Providing additional flexibility for these special category challenges will ensure funding is spent efficiently and effectively to achieve the intent of Congress.

SRFs also believe it's critical to develop a high-quality inventory of lead service lines to fully understand the scope of the problem. Without inventories, the full cost of lead service line replacement will remain unknown.

5. Past EPAs have promoted the ability of the SRFs to revolve.

- a. As we approach the end of the very first SRF loans, is self-sustainment still possible?

RESPONSE: No. Under current law, only 20% of the annual capitalization grant must be used for subsidized loans, which provides the permanent capital needed to sustain the program without annual capitalization grants.

First, SRFs must offer interest rates below the public financing market. In 2021, the average interest rate for a Drinking Water SRF subsidized loan was 1.074% - about half the rate of inflation. Historically low interest rates in the public finance market have significantly reduced revenue from interest payments needed to build a sustainable revolving pool of funds.

Second, congressionally mandated additional subsidy has reduced sustainability of the SRFs. Under the Safe Drinking Water Act and annual appropriations for 2022, SRFs are required to give away at least 26% of the capitalization grant in additional subsidy, which permanently eliminates recurring funding needed to make the SRFs sustainable.

Third, SRFs face significant pressure to use the maximum amount of additional subsidy and set-asides allowed under the Safe Drinking Water Act. SRFs may

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give away an additional 23% of the capitalization grant for additional subsidy, plus an additional 31% in set-asides for technical assistance, water quality programs, and administration.

For example, the SRF Implementation Memo strongly encourages the use of set-asides and the maximum amount of allowable additional subsidy. Further, the EPA Inspector General has undertaken an audit of the Drinking Water SRFs to identify and address barriers “that hindered states from spending the maximum allowed on loan subsidies for disadvantaged communities in their drinking water state revolving funds.”

Fourth, this year, Congress used the Drinking Water SRF capitalization grant to fund earmarks, which cut funding to the states by 36%. Funding earmarks using the capitalization grant exacerbates the ability of Drinking Water SRFs to become sustainable.

Finally, the cost of treating water to new and more stringent water quality standards is increasing. Continual capitalization is needed to ensure subsidized financing is available to address these increased costs, especially for small, rural and disadvantaged that couldn’t otherwise access or afford financing on the public market.

b. If so, when?

RESPONSE: The increased cost of providing safe, reliable drinking water, coupled with pressure to transform the SRFs into a traditional federal grant program, makes it increasingly difficult to achieve sustainability. Spending more federal funding on additional subsidy, instead of subsidized loans, only exacerbates this challenge.

c. Has IJA complicated or sped up that matter?

RESPONSE: Allowing SRFs to use *up to* 49% of the annual capitalization grants for additional subsidy, instead of requiring SRFs to give away those funds, would foster greater sustainability of the Drinking Water SRFs.

6. Your testimony mentions that the history of the SRFs have been one of Federal-State partnership and flexibility. Some would argue EPA’s implementation memo for IJA takes a very different approach to its relationship with the States.

a. What are some of the main items that CIFA members fear will be problematic for them?

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RESPONSE: The SRFs are most concerned about efforts, direct and indirect, to transform this successful, state-run subsidized loan program into a traditional federal grant program with a one-size-fits-all approach. This trend started a decade ago with federal mandates for workers' wages (Davis Bacon), construction materials (American Iron and Steel, and now Build America, Buy America) and additional subsidy. Continued federalization of the programs will only diminish the SRFs ability to efficiently and effectively meet the diverse needs of communities across the nation.

7. You testified that the majority of SRF loans go to communities serving up to 10,000 customers, but the majority of SRF dollars go to cities serving more than 100,000 customers.

- a. Based on the criteria in IJJA and the implementing guidance from EPA, how does CIFA see these items changing?

RESPONSE: Changes to the affordability criteria, which is used solely to determine eligibility for additional subsidy, is likely to increase funding for grants and principal forgiveness for projects in larger water systems.

- b. Will certain kinds of rural communities be left behind or otherwise disadvantaged? Please explain.

RESPONSE: SRFs are committed to helping small, rural communities build needed water infrastructure. Given the historic funding in the IJJA, SRFs are confident that small and rural communities will get the federal assistance needed to provide safe, reliable drinking water. However, pressure to provide additional subsidy to larger water systems, which may have little impact on user rates, may impact the availability of additional subsidy for smaller water systems whose user base can't afford the needed infrastructure.

Additionally, SRFs have expressed concern about the long-term impact of changing the affordability criteria to meet the Administration's goal of expanding eligibility for additional subsidy. Newly eligible communities may come to expect grants and principal forgiveness, which may impact small and rural communities when supplemental funding in the IJJA ends.

8. A high bond rating is important for SRF's ability to continue to offer loans with reduced borrowing costs.

- a. Are there provisions in IJJA or the implementation memo that CIFA believes might jeopardize these ratings?

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RESPONSE: SRFs need borrowers with strong credit ratings to ensure a diversified and balanced loan portfolio to maintain AAA bond ratings. Offering financing only to water systems that are disadvantaged, which are more likely to have lower credit ratings, may impact an SRF's bond rating.

- b. How does this impact the ability to leverage?

RESPONSE: Mandates to give away a portion of the capitalization grant in additional subsidy reduces the funding available for subsidized loans. Interest payments from subsidized loans are needed to repay bonds. As a result, the more funding used for additional subsidy, the less leveraging power available to an SRF.

9. Your testimony mentions how sometimes requirements on SRFs monies can be a disincentive to communities to apply for loans.

- a. Please speak to some of these hurdles and if well-meaning approaching are stunting the effectiveness of the funding.

RESPONSE: Many small and rural communities don't have the professional capacity to manage a capital improvement project and ensure compliance with the myriad of federal mandates on SRF borrowers. Often, these communities must contract for additional support to implement mandated procedures and complete required paperwork, which increases the administrative cost of water infrastructure on those who can least afford it. In very small communities, federal mandates can be a deterrent to undertaking much needed infrastructure.

Conversely, larger communities with access to historically low interest rates in the public finance market often opt for tax-exempt municipal bonds which offer affordable financing without the federally mandates processes and paperwork.

- b. What should be done to alleviate these concerns?

RESPONSE: CIFA believes less process and paperwork will result in more protection for public health and the environment.

Congress should consider waiving federal mandates for Davis Bacon, American Iron and Steel, Build America, Buy America, and crosscutters for small and rural communities, particularly those with declining populations and depressed economies. Providing regulatory relief to these communities will reduce the cost of water infrastructure, which can incentivize investment.

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Additionally, Congress should consider ways to reduce compliance procedures and paperwork for all borrowers. For example, Congress could waive compliance procedures for Davis Bacon in states with state prevailing wage laws, which would reduce duplicative administration without impacting wages for workers.

10. What are the best uses for funds to improve drinking water infrastructure? Does IJA/BIF maximize those?

RESPONSE: The best uses of funds are based on a variety of factors, including the project, compliance, threat to public health and affordability.

Generally, subsidized loans provide a recurring source of revenue to meet the perpetual need for infrastructure investment. Conversely, additional subsidy (grants and principal forgiveness) permanently eliminates a permanent source of recurring revenue to meet the needs of future generations. Because of this, additional subsidy is often used for projects that couldn't or wouldn't otherwise be built, to address a serious threat to public health, or to tackle other significant challenges.

For example, using 100% of the capitalization grant as additional subsidy to replace lead service lines may be the best use of funds to accelerate these "one-time" projects needed to remove a significant threat to human health, especially for the most vulnerable. Conversely, using 100% of the capitalization grant for subsidized loans (which was allowed for the first two decades of the Clean Water SRFs) may be the best use of funds to replace aging infrastructure, which is a permanent, recurring need.

Additionally, limiting the use of additional subsidy doesn't mean small, rural and disadvantaged communities won't receive the assistance needed to provide safe, reliable drinking water. Most states have grant programs with fewer mandates to help those vulnerable communities.

11. In your opinion, is an "eligible recipient" of Drinking Water SRF funding always the same as a state-defined "disadvantaged community" under section 1452(d)(2) of the Safe Drinking Water Act?

RESPONSE: CIFA interprets "eligible recipient" in IJA as any entity or project that is otherwise eligible for funding by the Drinking Water SRF.

SRFs are concerned that limiting eligibility for additional subsidy to disadvantaged communities may conflict with the statutory requirement that the "priority for the use of funds be given to projects that address the most serious risk to human health." Providing SRFs with maximum flexibility to use

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supplemental funding in the IJA ensures the priority remains protection for public health.

12. The Infrastructure Investment and Jobs Act makes additionally subsidized Drinking Water SRF funding available to “eligible recipients,” but EPA’s implementation memorandum restricts the availability of these funds to “disadvantaged communities” defined by states under section 1452(d)(2).

- a. Does this restriction give states less flexibility in getting these funds to assist low-income populations, wherever they are located?

RESPONSE: Restricting additional subsidy to only disadvantaged communities limits options for SRFs to help a variety of communities. Many SRFs would consider providing additional subsidy to larger communities with vulnerable populations but are concerned about the long-term unintended consequences of changing their affordability criteria to qualify these communities.

13. How does the Infrastructure Investment and Jobs Act affect the ability of the States to meet their match requirements, including as it relates to bonding?

RESPONSE: Mandated additional subsidy threatens the ability of a state to provide match. Some states issue bonds to generate state match; these bonds are secured with loan repayments. Mandates for additional subsidy reduces funding for loans, which, in turn, reduces revenue to secure bonds for state match.

14. I noticed that your testimony calls out challenges and barriers faced by communities – many without expertise -- in navigating processes for requirements that some members find politically popular, like Buy America, Build America (BABA) and Federal prevailing wage requirements.

- a. Why do you call for the development of waivers for these requirements in limited circumstances?

RESPONSE: Until EPA releases implementation guidance for the SRFs, there is a great deal of uncertainty about what BABA waivers may be necessary.

First, a national waiver may be needed to allow SRFs needed time to educate the SRF community, which includes local elected officials, borrowers, contractors, technical assistance providers, and others, about the requirements and compliance procedures for the domestic procurement preferences. Waivers may need to be different lengths of time for different product categories. For example, SRFs have been complying with procurement for American iron and steel (AIS) for a decade. If the process for BABA mirrors the process for AIS, a waiver may be needed for

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a relatively short time. However, implementing compliance rules for manufactured products is complex and may require a waiver for a longer period to ensure ultimate compliance. Inflation and supply chain disruptions may further complicate this process.

Second, a national waiver may be necessary for certain manufactured products that have never been made in America.

Third, a national waiver may be necessary to allow manufacturers time to bring production back to the United States.

Fourth, a national waiver may be necessary to alleviate the cost of compliance for small, rural and disadvantaged communities. Waiving requirements for small communities will also make their projects more attractive in a very competitive environment for infrastructure construction.

Finally, waivers for individual projects can be time-consuming, which can delay construction and increase costs. To streamline the process, if a waiver is approved for one project, it should apply to all projects.

- b. What did your officials learn from the use of waivers to similar requirements in 2009's American Recovery and Reinvestment Act?

RESPONSE: Implementation of procurement requirements for American Iron and Steel provides lessons for implementation of BABA. First, it takes time to educate borrowers and grant recipients about the new rules and requirements. Second, clear, unambiguous guidance is essential for implementation and compliance. Third, there needs to be a recognition that waivers are a legitimate component of compliance and the process for waivers needs to be objective, consistent, and streamlined.

Attachment A

Bipartisan Infrastructure Law Drinking Water SRF Intended Use Plan Oversight Guidance

EPA regions are responsible for awarding the annual SRF capitalization grants and Bipartisan Infrastructure Law (BIL) (also known as the Infrastructure Investment and Jobs Act, or IIJA) SRF capitalization grants. Part of this responsibility includes review of the state Intended Use Plans (IUPs) to ensure compliance with all statutory and regulatory requirements. The BIL includes several key priorities which EPA is committed to collaborating with states to advance. This BIL Drinking Water SRF IUP Oversight Guidance establishes a common approach to assess if IUPs comply with all requirements. Recognizing the flexibility in state decisions inherent in the SRF programs, the guidance also provides a common approach for providing EPA's recommendations to best meet the goals of Congress under the Bipartisan Infrastructure Law as well as Administration priorities. The guidance draws from the [Implementation Memorandum for the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law](#).

It is important for EPA to engage with the states early in the IUP development process. Regions should use the IUP Initial Discussion Guide (below) to engage states on EPA's expectations for implementing the BIL funding programs and their plan for meeting those expectations. The questions in this discussion guide are intended to assist the region in engaging the state in a meaningful discussion surrounding the elements that should be reflected in their IUP. The IUP Initial Discussion Guide includes questions that provide an understanding of best practices and EPA recommendations. The guide also includes questions regarding statutory requirements that include the reference to the applicable provision. These discussions are part of ongoing conversations with the state programs. The Region must complete one discussion guide per each state per year and may update it based upon follow-up conversations, if necessary.

Some things to keep in mind:

- The discussion guide is organized by topic for easy reference and does not represent a suggested order for conducting the IUP review or conversations with the states.
- Green questions indicate high priority questions; if the answer is no for these questions in year one, the IUP may need to be elevated for discussion with HQ.
- The region should feel free to diverge from this discussion guide to ask follow-up questions and delve into more detail on issues pertinent to the state. The comments section should be used to provide notes on the conversation.

- Some questions in the discussion guide are open-ended and require the region to enter a detailed response. The Regional review team may find it useful to summarize the state's response in 1-2 sentences for the purposes of completing the checklist and maintain a more thorough collection of notes for their own use.
- An effective approach may be for one person on the review team to lead the discussion with the state, while a second person takes notes on the state's response.
- Following the interviews, the region can condense and summarize the notes to complete the checklist. The completed IUP Initial Discussion Guide should be shared with OW for review prior to the IUP public review period. HQ will not provide "approval" but may provide feedback on a case-by-case basis.

States have the flexibility to combine IUPs for the BIL and base funding or submit separate IUPs for BIL and base funding. The questions in this discussion guide are specific to BIL and the conversations should help to shape the development of the BIL IUPs or BIL portions of IUPs. However, many of the questions are related to broader priorities applicable to both BIL and the base SRF programs. To the extent practicable, the region should discuss with the state how they are integrating these priorities into their base SRF program.

Once the IUP is received by the region, the IUP Checklist (attached) should be used to ensure that all required elements are addressed. Questions in the IUP checklist complement and follow up on those used in the initial discussion guide and serve as another touch point to ensure consistent messaging. The IUP checklist should be shared with OW for review as soon as it is completed and prior to grant award. HQ will not provide "approval" but may provide feedback on a case-by-case basis.

IUP Initial Discussion Guide

State:
Date(s) of IUP Pre-Review Discussion:
Fiscal Year:
Participants:

I. Increase Investment in Disadvantaged Communities			
Item	Citation	Y, N, or N/A	Comments
1. Does the state have a plan to provide 49% of funds through the DWSRF General Supplemental Funding as grants and/or forgivable loans to disadvantaged communities?	BIL Law; STAG Section		

2. Has the state evaluated and revised the DWSRF disadvantaged community definition since the previous IUP? If so, what has changed?	Best Practice		
3. Is the disadvantaged community definition consistent with the SDWA (<i>"the service area of a public water system that meets affordability criteria established after public review and comment by the state in which the public water system is located"</i>)?	SDWA 1452(d)(3)		
4. Does the definition capture both urban and rural disadvantaged communities?	Best Practice		
5. Does the state's SRF priority point system ensure disadvantaged communities are receiving funding given the weight associated with points for project ranking criteria?	Best Practice		
6. Does the state plan to use the full DWSRF 2% small system TA set-aside to proactively identify, reach out to, and assist small drinking water systems, particularly in disadvantaged communities?	Best Practice		
7. Has the state reached beyond traditional stakeholder organizations to engage neighborhood and other organizations connected to the community to help identify needs, comment on IUPs, and communicate priorities?	Best Practice		
8. Does the state plan to take their full BIL General supplemental allotment?	Best Practice		
II. Make Rapid Progress on Lead Service Line Replacement			
Item	Citation	Y, N, or N/A	Comments

9. Does the state have a plan to provide 49% of funds through the DWSRF LSL Funding as grants and/or forgivable loans to disadvantaged communities?	BIL Law; STAG Section		
10. Is the state using set asides or other funding to help local water systems develop LSL inventories and undertake replacement planning?	Best Practice		
11. Do the projects on the IUP fully replace both public and private LSLs?	SDWA 1452(a)(2)(B)		
12. Do the projects on the IUP fully pay for both public and private LSLs?	Best Practice		
13. Does the state plan to take their full Emerging Contaminant allotment?	Best Practice		

III. Address PFAS and Emerging Contaminants			
Item	Citation	Y, N, or N/A	Comments
14. Does the state have a plan to provide 25% of funds through the DWSRF Emerging Contaminants Funding as grants and/or forgivable loans to disadvantaged communities or public water systems serving fewer than 25,000 people?	SDWA 1452(a)(2)(G)(iii)(I)		
15. Are projects that address PFAS prioritized above projects addressing other contaminants?	BIL Law; STAG Section		
16. Does the state plan to take their full allotment?	Best Practice		

IV. Support Resilience and One Water Innovation			
Item	Citation	Y, N, or N/A	Comments

17. Is the state prioritizing projects that foster resilience to all threats and hazards, consistent with Presidential Policy Directive (PPD) 21 ?	Best Practice		
18. Does the state support water, infrastructure projects that apply the best available and most geographically relevant climate information, projections, and standards, such as the Federal Flood Risk Management Standard?	Best Practice		
19. Does the state incorporate climate resilience criteria into their prioritization of SRF funding under the BIL?	Best Practice		
20. How does the state SRF program support local water agencies' efforts to reduce nitrous oxide and methane emissions, incorporate renewable energy generation, and complete other projects that reduce the greenhouse gas footprint of the water industry (e.g., priority points, financial incentives, etc.)?	Best Practice		
V. Support American Workers and Renew the Water Workforce			
Item	Citation	Y, N, or N/A	Comments
21. Does the state encourage or participate in pre-apprenticeship, registered apprenticeship, and youth training programs to support the water workforce?	Best Practice		
22. Does the state inform and encourage SRF funding recipients to support safe, equitable, and fair labor practices?	Best Practice		

23. Is the state interested in learning more about these practices?	Best Practice			
VIII. Refine State SRFs to Build the Pipeline of Projects				
Item	Citation	Y, N, or N/A	Comments	
24. Has the state taken actions to reduce the burden of applying to the SRFs? (Examples: moving to a digital application process or coordinating applications and requirements across funding programs)				
25. Has the state maximized flexibility for project application timeline, such as eliminating application deadlines or operating a year-round application cycle with quarterly project ranking?	Best Practice			
26. Does the state offer pre-development and pre-construction funding to seed project development for small and disadvantaged communities?	Best Practice			
27. Does the state encourage regionalization, partnerships, and/or nonphysical consolidation through the application process? This could be through ranking criteria, financial incentives, loan condition, application requirements, or another mechanism.	Best Practice			
28. Has the state worked to increase internal and external outreach and communications about the SRF programs and the BIL funding? If so, how?	Best Practice			