



The Our American States podcast—produced by the National Conference of State Legislatures—is where you hear compelling conversations that tell the story of America’s state legislatures, the people in them, and the policies, process and politics that shape them.

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### **Going Big on Clean Water | April 24, 2022 | OAS Episode 156**

Ed: Hello and welcome to “Our American States,” a podcast from the National Conference of State Legislatures. This podcast is all about legislatures: the people in them, the policies, process, and politics that shape them. I’m your host, Ed Smith.

AR: *The first point is it is just so much money. You know over a five-year window, it’s a total of about 43 billion dollars.*

Ed: That was Alan Roberson, the executive director of the Association of State Drinking Water Administrators. He is one of my guests on this podcast.

The Infrastructure Investment and Jobs Act, or IIJA, signed by President Biden in November 2021 provided \$1.2 trillion for roads, bridges, highways, broadband, water projects and more. The \$55 billion included for water projects is the largest single investment in water infrastructure in the nation’s history.

My first guest on the podcast is Kristen Hildreth, the legislative director for Natural Resources and Infrastructure at NCSL. She breaks down what is in the bill, how states will access the money and some of the challenges, including matching funds in some areas.

Roberson focuses on new money provided under the bill to address lead service lines and emerging contaminants. He explains the complexity of the lead service line programs and some significant challenges states and water system operators may encounter dealing with the PFAS contaminants.

This is one of several podcasts this year focusing on the IIJA. Other shows will focus on energy; roads, bridges and transit; and the expansion of broadband.

Here's our discussion.

Kristen, welcome to the podcast.

KH: Thanks for having me Ed. Glad to be here. So excited to finally be on the renowned "Our American States."

Ed: Well, we are very happy to have you. We are going to talk about money today. Money that is included in the Infrastructure Investment and Jobs Act, or IIJA, for water projects. But first, why don't you just take a minute to explain to listeners what your role is at NCSL?

KH: Of course. I am our legislative director for our Natural Resources and Infrastructure Committee where I advocate on the behalf of states with Congress and the administration primarily on environment-related issues. So, my job includes identifying, monitoring, interpreting the full range of congressional and federal agency actions and policies that affect state governments, advocating effectively on behalf of states and ensuring our members have the most up-to-date information they need on any federal action.

Ed: So, let's turn to the IIJA. This included \$55 billion in new funding on water via the EPA, the Environmental Protection Agency. And it's the largest single investment in water infrastructure in the nation's history. I'm not sure everyone appreciates how much money that is since so much of the focus in media was on transportation when this bill passed. I wonder if you can break down the water funding and explain how this might spur projects around the country.

KH: Now like you said, Ed, the funding that was included in the IIJA was historic. It was truly a transformational investment in the nation's water infrastructure. And that \$55 billion in new water infrastructure broke down to around \$50 billion for drinking water and wastewater specifically. And that breakdown was around \$11.7 billion in supplemental funding for EPA's existing state drinking water, state revolving fund; \$11.7 billion in supplemental funding for its clean water state revolving fund; \$15 billions for lead service center replacement projects via the existing drinking water revolving fund mechanism; \$10 billion for per-and polyfluoroalkyl substances better known as PFAS and other emerging contaminants via the existing drinking water. So, your revolving fund, clean water revolving fund and its water infrastructure improvements for the nation's small and underserved communities, emerging contaminants grant program funding mechanisms. And that's how that funding might spur water projects. You know the national attention on the condition of the nation's water infrastructure and

challenges faces by states and localities in maintaining such infrastructure coupled with this significant expansion of funding is certainly going to lead to the initiation of new projects and allow for the growth of some existing projects.

*(TM): 04:36*

Ed: So, you mentioned the state revolving funds or SRFs. As I understand it the bulk of this money ends up going through them. Can you explain how those work? How those state revolving funds work?

KH: Of course. So, of that \$50 billion for drinking water and wastewater infrastructure, more than \$43 billion of it is administered through the two existing state revolving funds. And that's the drinking water state revolving loan fund, which is a financial assistance program to help water systems and states achieve the health protection directives of the state drinking water act and is often used to improve water treatment or repair old pipes and also improve the source of water supply. And then there is the clean water state revolving fund, which is a financial assistance program for a wide range of water infrastructure projects including the creation of municipal wastewater facilities, controlling non-point sources of pollution and green infrastructure just to name a few.

But how they work is a little bit easier to describe in a flowchart but let me try to paint a picture for you. So, Congress appropriates funding for the SRFs and then EPA, the Environmental Protection Agency, will then award capitalization grants to each state based on the allotment formula for each SRF with the state providing a certain percentage of matching funds. states are responsible for the operation of their SRF programs. They may set specific loan terms, including interest rates from zero percent to market rate and repayment periods of up to 30 years. States really have the flexibility to target financial resources to their specific community and environmental needs. And may also customize those loan terms to meet the needs of small and disadvantaged communities or even to provide incentives for certain types of projects. They function very much like an environmental infrastructure bank by providing low interest loans to eligible recipients for clean water and drinking water infrastructure projects. And as money is paid back into the states SRF, the state then can make new loans to other recipients for high priority water quality activities. Repayment of that loan, principal and interest earnings are recycled back into the individual state SRF programs to finance new projects that allow the funds to be revolved at the state level over time.

Ed: Oh, that's fascinating. I think probably a lot of people don't understand how that works so thank you for breaking that down for us. This is a lot of money. How are states going to receive it? What's the timing on this? I know that these things always are somewhat more complicated than we might assume.

*(TM): 07:07*

KH: Of course. The states aren't going to receive that \$43 billion for the SRF all at once. It's going to be split across FY 2022 to FY 2026. So that's a total of five years and I won't speak to a lead service line or the PFAS and emergent contaminate funding. You will hear from Alan on that. But for the Supplemental Clean Water State Revolving Fund and the Drinking Water State Revolving Funds, states should anticipate the amount they are set to receive based on those existing allotment formulas. And those are going to increase for the first two years and then plateau for the next three. With another caveat that for the funding via the Drinking Water State Revolving Fund, the formula that – the formula which identifies the amount that the states will get is actually going to shift a little bit based on the release of a new EPA report derived from the seventh drinking water needs survey and assessment. Funds are going to remain available for obligation to states for the fiscal year in which they are appropriated and the following fiscal year for the Clean Water Act and the Safe Drinking Water Act. So, for example, EPA is going to make the FY 2022 funds available for obligations to states during FY 2022 and FY 2023.

Ed: Let me ask you about matching funds. This is always a significant issue in any federal program. And I understand that on the two types of revolving funds, there is a 10% and then an increase to 20% matching funds for states. How are states going to meet these matches? Where is that money going to come from?

KH: So, it's certainly a hefty amount especially when we are seeing some states being eligible to receive more funding than they have ever seen before. In the past when Congress has substantially increased those SRF appropriations for example in the 2009 American Recovery and Reinvestment Act, they've also waived that match requirement. Congress has done so for the Lead Service Line and PFAS and Emerging Contaminant Funding. They didn't do so for the supplement SRF. What Congress did do however is decrease that match requirement for the supplemental SRF Funds to 10% from the traditional 20% for those first two years and then increasing it back to 20% for those later three years. And while it is not as great as waiving the match entirely, it is still certainly beneficial for states in accessing those funds.

In the past, states have used revenues from state taxes, fees and retired bonds to make their match. Although abilities for states to make that match may be constrained by budgets and commitments to other programs. I will note that the Department of Treasury did determine funds from the State and Local Fiscal Recovery Funds which were part of the American Rescue's Plan which were available for the provisions of government services up to the amount of the state's reduction in revenue due to the

Covid 19 pandemic may be used to meet the non-federal match requirements of the Supplemental Drinking Water State Revolving Funds and Clean Water State Revolving Fund Programs. So, there is hope that that will provide states with additional flexibility to meet those matching requirements in the IJJA.

Ed: It does sound like there is going to have to be a little innovative thinking at the state level to come up with that. We are now at the end of April 2022, and I wonder what do you think? Can states expect to receive any of this funding before the end of the year for example?

KH: It's a great question. In early March, EPA unveiled its SRF implementation memo which outlined the strategy for collaborate implementation with state, local and federal partners for that \$53 billion in water infrastructure funding flowing through the SRF. At this point in time, states should be focused on soliciting product applications and funding the source of the state match for that 10% amount. Once states do that then they will develop their intended use plan, solicit public comment and submit their application to EPA which will then review those intended use map plans before dispersing the funds. Once those steps are complete, it's likely that funds should start to roll out sometime in the mid-fall of 2022 although that may push to December of 2022.

Ed: Well that sounds still within the year so that's – that seems fast by federal standards. As we get ready to wrap up, let me ask you about the role of legislatures in handling these funds and associated projects. How much of a role does the legislature have?

KH: SRFs are the foundation of water infrastructure and investments providing low-cost financing for local projects across the United states. And effective partnership between the federal government and states in deploying these funds is really going to be essential to unlocking their full potential. The SRF provides states the flexibility to address water infrastructure challenges within their communities both in program administration and processes. States themselves have the flexibility to determine priorities and select projects, design and manage the application process, transfer funds between the programs to address state need and set interest rates and repayment terms and define disadvantaged communities just to name a few.

The role in the legislature is going to differ in each state although one thing is certain: Most if not all are going to have to appropriate those matching dollars, and some may have to approve budget increases to provide a match, which may need state legislature approval. If a legislature chooses to, they can enact legislation to finding communities. They can require a certain number of water infrastructure projects focused in a particular area or even require an additional report or two from the agency in charge of

administering their state revolving funds highlighting on how they are utilizing the increased level of funding. It's going to be really legislature dependent here.

Ed: Well great, Kristen. Thank you so much for breaking this down. These issues are quite complicated and it's good to have a guide. So, thanks again and take care.

KH: Thank you Ed.

Ed: I'll be back right after this with Alan Roberson from the Association of State Drinking Water Administrators.

*(TM): 13:08 Advertisement and Music*

Ed: I'm back with Alan Roberson, the executive director of the Association of State Drinking Water Administrators. Alan, welcome to the podcast.

AR: Thanks. I'm glad you invited me.

Ed: Earlier in the podcast, I talked with Kristen Hildreth at NCSL about elements of the Infrastructure Investment and Jobs Act that affect water projects. She mentioned there is a significant amount of funding states have not seen before, including money for lead service line replacement and emerging contaminants. Can you talk about why that's significant to states and localities?

AR: Well, the first point is it's just so much money. You know over a five-year window, it's a total of about \$43 billion. And in the past, the five-year amount you might get in the State Revolving Loan Fund would be closer to \$5 or \$6 billion, so it's just--you know it's not quite an order of magnitude but say 7 or 8 times what we normally get in a five-year window. So, you have this big funnel of money passing through the states to go to water systems. Because of all of that money, then they are able to focus on, you know, three kinds of main areas. One is a traditional State Revolving Loan Fund for more traditional infrastructure. It could be drinking water plants. It could be tanks. It could be distribution system pipes. Just that fund is going to increase over that five-year window, it's about \$11.7 billion.

And you've got two new pots of money. One you talked about was lead service line replacement, so now there is \$15 billion--\$3 billion a year each year for five years. And then another \$4 billion for emergent contaminants primarily focusing on PFAS. That's sort of the class; that sort of was the driver for this.

And with the lead service line, we really think it will push everybody along on getting the lead out. Say getting the lead out that means taking the lead sewage lines out from the main in the street all the way through the building wall or slab to the wall of the house or the slab. That removes a significant source of lead exposure in drinking water. The way you start that process is you do inventories first. You have to identify where they are. The records can vary quite a bit in systems as to what they have for knowledge of what materials are on the service line. And we are dealing with both a public side of the line which is in the right-of-way of the street and what's on private property. There are a lot of systems that have, you know, some knowledge about what is publicly owned, but maybe very little about what the plumber put in when they built the house. And so, this will drive both the development of inventories for 70,000 water systems across the country in replacing the lead where they find it and a fairly large number there, too. We just are not sure how many yet.

Ed: So, I know in the infrastructure bill generally, there is a lot of situations where matching funds are required from states. Does that apply to these? These two instances the contaminants issue and the lead service line replacement?

AR: Well, it varies. You know and that is kind of a tradition of the state revolving funds is that Congress thinks it's helpful for the states to have some skin in the game to put in some money you now to ensure appropriate oversight and other details that the states know best. And so, in the past, the State Revolving Fund would have a 20% match. But what Congress did is with this big increase, they said OK for the first two years, we are dropping that percentage down to 10 and then the last three years, they are bumping it back up to 20. Now that's just that pot of money what we are calling the traditional SRF.

For the lead service lines and for the PFA and emergent contaminants, it's zero. There is no state match for that. And that's really more, I guess, from the public health perspective, I mean it's all about public health anyway. But these are two really pressing public health issues. Two that have gotten a lot of publicity in the last 3 or 4 or 5 years. Think about Flint and lead service lines, and think about Hoosick Falls and other cities with PFAS contamination. People know about them. And so there has been movies made and books written. And so now with the traditional funding – really a significant increase in funding, I think we are going to make a big dent in taking out the lead service lines, treating for PFAS and then also just generally increasing the quality of the drinking water infrastructure across the country.

*(TM): 18:08*

Ed: Well, I think you are right about public awareness. The story about what happened in Flint received massive coverage and I know here in Colorado the PFAS issue came up

because of water contamination south of Colorado Springs where firefighting foam was used by the military.

AR: What they found with these forever chemicals, the PFAS chemicals, is that initially we thought it would just be the manufacturing facilities and there are you know several scattered throughout the country. And then it went to the Air Force firefighting foam and then that even broadened into fire training academies and a lot of other facilities that we didn't know about. And then they found sites from different kind of production. There was a site up in Michigan that was from a shoe manufacturer where it was a common product for waterproofing, which is again how I first heard about these was you know Scotchguard and Stainmaster back in the day. And so, there is just a lot of new sources that keep coming up and that's just again like you said, the site, the Air Force Base near Colorado Springs was one of the early ones when we first started sampling for these.

Ed: So, let me go back to the lead water lines. This has been a challenge for states and the federal government. It's not like they haven't been trying to do something about this. How much of a difference will this level of money make?

AR: I think it's going to make a huge difference. I think, again, you know it's a two-step process. You have to identify where you have lead service lines and if it's unknown, then it takes some steps to determine if it is lead or not. You can dig holes or other ways to try and do that modeling and other means to try and determine if there is lead there or not. So, you are going to be able to inventory and then really you want to try and use the bulk of that money for replacements. The cost can vary significantly. Newark was able to do it for about \$7,000 a line because they had an assembly line process. The city was able to pass an ordinance to allow the city and the contractors to go on private property and replace the lines because they had a majority of the residents that were renters. And so, it was a problem getting ahold of the landlords. The city passed the ordinance, and they would just go down the block and blow through all the service lines. But you go to some areas and they have to move around. It can be \$10, \$15, \$20,000 a service line. So having this money will make a big difference in the number of lines you can replace.

There is also this issue we have to sort through is the requirement. You know right now under the current lead and copper rule, you only have to replace 3% of the lines when you have what's known as an action level exceedance. EPA is looking at maybe changing that. There is a – they finalized the rule last year. They are looking at doing instead of improvements, it may have mandatory requirements. But there are a lot of utilities out there that are progressive and are going to want to do it anyway or their customers are going to want them to do it. You've seen that in D.C. You've seen that in Cincinnati,

Newark, all kinds of cities – Denver is doing a big lead service line replacement. And so, I think that's going to be the driver is the cities that want to take advantage of this free money will do replacements because they have the access to the money and their customers are going to want it.

Ed: Let me ask you about that lead and copper rule. Is that likely to find a lot more states coming into compliance or is it as you are saying, maybe that is still unclear.

*(TM): 21:25*

AR: I think it's still unclear to a degree. I think there will be more systems that will have compliance problems with the new rule given some of their sampling requirements. They want you to sample where you have lead service lines and so I think as more lines are found, they will be sampling more often from locations that have lead service lines and that's going to knock systems out of compliance and require replacements. The states are going to have to do a lot of work to implement this rule. Right now, they are in the process of looking at their intend to do plans so to get this money they have to have an overall plan for each project. How much it's going to cost and do a prioritization scheme. So, they are having to modify those to take into account this new lead service line money and the emerging contaminants money and they are going to have to review all of the grant applications. So, there is going to be a lot of work just to sort of work with that process. And then on the lead side, they are going to have to review and approve all the inventories. Similar for any treatment that is put in for PFAS or the other emerging contaminants. They are going to have to review and approve the treatment that's installed to ensure that it works as it is designed.

Reviewing all of these grant applications, the inventories, the treatment plans and then tracking everything. The federal government is going to want to see results. They are going to want to know how many lead service lines have been replaced on annual basis. You know states are hard at work developing data management systems to be able to put all of this together and track it and report it so both the federal government and the public knows what's being done with this money.

Ed: So, to go back to the emergent contaminants, since they have taken some action around mitigating the effects – some of it's health guidelines. They've set contaminant levels and that sort of thing. What do you think that the states will end up doing with this new money? What will the most likely courses of action be?

ARJ: I think there are a few things. As you said, a lot of states have already done monitoring and a handful have set their own standards again because the consumers in that state demanded it. They did not want to wait for EPA to set national standards. Now EPA is in

the process of doing that, but these states, their constituents wanted the states to move faster. So, more states are doing monitoring now and this money will probably even have more monitoring done.

But a lot of the water systems are going to do monitoring required by EPA starting in January. In January of next year, we will have about 12,000 systems monitor for 29 different PFAS. And that will really develop robust occurrence data across – more robust occurrence data. We already have some. This will be a broader scan across the country. From that, the bulk of the money is going to be used to put in treatment where it is needed and that's really, I think the primary source is that the treatment to remove these forever chemicals, it's expensive to build and it's also expensive to operate and maintain. Typically, you have these large steel tanks that have some kind of absorbent media in them. The water goes through that, and it takes out the PFAS chemicals. So, there is an issue there in just the capital cost to build the tanks and the pipes and the valves and the pumps to make it work. But then you also have to change the media on regular basis. At some point, the absorptive capacity of the media is gone, and you have to replace it with fresh media. So, there is an operating cost that the utilities have to cover themselves. So that operating cost cannot use the federal money. It has to come from the rate base, so that is one issue that our states are going to have to work with is to make sure the systems are sustainable. In other words, the systems have a decent enough rate base that they can pay for the maintenance, the media changeout, on a regular basis. Typically, also when you put in that kind of advanced treatment you need a higher-grade operator. And so, there is an issue there with making sure that you have the person that has the knowledge and the skills to operate that advanced treatment. Typically, it is going to cost more money for that operator so again you are back to financial sustainability of the system.

And then another issue that we are still sorting out is then what do you do with that spent media? You have taken it out of the vessel. You have it in a truck. You just don't want to put that in a landfill and then create a landfill problem with the leaching into the ground water. There are some promising technologies on very high temperature destruction. That's the ideal way is you break the bonds in these complex organic chemicals and you don't have the problematic chemicals anymore. That technology is still evolving, but that seems to be the long-term solution. So, I think how systems dispose of the media is going to be an issue that is still to be determined because if you have to take it to a hazardous chemical disposal site, your disposal costs are a lot more and again that just continues to increase at that operating and maintenance cost. So again, I think the bulk of the money is going to go to treatment.

Ed: Well, speaking of money, how do states get this money? Is this accessible now? How do they go about pulling down these funds?

AR: Well not surprisingly, it's a little bit of a complicated process. And I mentioned earlier the term intended use plans and that's the starting point. They develop the plan, and they have a prioritization scheme. They have a ranking criteria and then they total those as they go down and when they kind of – they know what their allotments are going to be. The EPA has a formula for determining how much goes to each state based on population and the number of water systems with a 1% minimum for the very small states.

So, they know what they are going to get and when they hit that then they submit that to EPA. EPA reviews and approves the intended use plan. That's a starting point. States get the grant application from the systems. Those get reviewed and approved and then EPA transfers the money to the states. The states then are in charge of managing the money. So, they don't turn around necessarily and just give it all to water systems. They give progress funds as progress are being made and typically it's done on a monthly construction draw. So, every month the contractor for the facilities will submit something to the state and they will get reimbursed that way. So, then the state holds the money while the project is being built and doles it out every month to match the progress of construction. So, the short answer to your question is no, they don't have the money yet. So, I kind of gave a long answer, but they will get the money soon and in fact the EPA is targeting to disperse all the money by the end of the fiscal year, which is Sept. 30.

So, again, states are in this, you know, really busy time of trying to develop these intended use plans and in that they get sort of a basic grant application and then working with the systems get the full grant application because unfortunately with you know federal money, any kind of money, there is a lot of paperwork. And so they are already working with the systems to make sure that everyone knows how to fill out all of that paperwork particularly when you are trying to work with smaller systems or disadvantaged communities you have to hold their hand a little bit and provide some technical assistance on all the paperwork and the forms in order to get that application done properly, get it approved and get the money out the door to the system.

Ed: Well, I think we are going to wind it up there and I want to thank you for your time and say take care.

AR: Thank you for the invitation. Again, it's an exciting time to be working in water because of all of this federal funding and all the issues that we are grappling with so thanks again.

*(TM): 29:28*

Ed: And that concludes this episode of our podcast. We encourage you to review and rate NCSL podcasts on Apple podcasts, Google Play, Pocket Casts, Stitcher or Spotify. We also encourage you to check out our other podcasts: “Legislatures: The Inside Storey” and the special series “Building Democracy.” Thanks for listening.