

OVERSIGHT OF THE CLEAN WATER STATE REVOLVING LOAN FUND FORMULA

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

MARCH 16, 2022

Printed for the use of the Committee on Environment and Public Works



Available via the World Wide Web: <http://www.govinfo.gov>

U.S. GOVERNMENT PUBLISHING OFFICE

49-716 PDF

WASHINGTON : 2023

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

THOMAS R. CARPER, Delaware, *Chairman*

BENJAMIN L. CARDIN, Maryland

BERNARD SANDERS, Vermont

SHELDON WHITEHOUSE, Rhode Island

JEFF MERKLEY, Oregon

EDWARD J. MARKEY, Massachusetts

TAMMY DUCKWORTH, Illinois

DEBBIE STABENOW, Michigan

MARK KELLY, Arizona

ALEX PADILLA, California

SHELLEY MOORE CAPITO, West Virginia

Ranking Member

JAMES M. INHOFE, Oklahoma

KEVIN CRAMER, North Dakota

CYNTHIA M. LUMMIS, Wyoming

RICHARD SHELBY, Alabama

JOHN BOOZMAN, Arkansas

ROGER WICKER, Mississippi

DAN SULLIVAN, Alaska

JONI ERNST, Iowa

LINDSEY O. GRAHAM, South Carolina

MARY FRANCES REPKO, *Democratic Staff Director*

ADAM TOMLINSON, *Republican Staff Director*

C O N T E N T S

	Page
MARCH 16, 2022	
OPENING STATEMENTS	
Carper, Hon. Thomas R., U.S. Senator from the State of Delaware	1
Capito, Hon. Shelley Moore, U.S. Senator from the State of West Virginia	3
WITNESSES	
Ramseur, Jonathan, Environmental Policy Specialist, Congressional Research Service	6
Prepared statement	8
Sigmund, Tom, Executive Director of New Water, National Association of Clean Water Agencies	30
Prepared statement	33
Dreyfuss-Wells, Kyle, Chief Executive Officer, Northeast Ohio Regional Sewer District	39
Prepared statement	42
Watson, Laura, Director, Washington State Department of Ecology	45
Prepared statement	47
ADDITIONAL MATERIAL	
Statement of ASCE The American Society of Civil Engineers	68

OVERSIGHT OF THE CLEAN WATER STATE REVOLVING LOAN FUND FORMULA

WEDNESDAY, MARCH 16, 2022

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

U.S. Senate Committee on Environment and Public Works Washington, DC.

The committee, met, pursuant to notice, at 10:05 a.m. in room 406, Dirksen Senate Office Building, Hon. Thomas R. Carper (chairman of the committee) presiding.

Present: Senators Carper, Capito, Cardin, Kelly, Padilla, Boozman, Sullivan, Ernst.

OPENING STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE

Senator CARPER. Good morning. I am pleased to call this hearing to order.

Before we take up the business of the day, Senator Capito and I and our colleagues have just listened to a live virtual address by the President of Ukraine, President Zelenskyy. We were shown a video of the utter carnage that is taking place in that Country. I think I would like to, I don't think I have ever done this. I would like to start with a moment of silence and prayer.

[Pause.]

Senator CARPER. Thank you.

Well, it is not a good morning in some places around the world as we watch the carnage that is taking place in Ukraine. But it is a good morning here in this hearing room. It is actually a beautiful day. I go back and forth to Delaware on the train. Today I had to get up early and we drove over. I came down Route 301 through Delaware and Maryland, and what a glorious, glorious day across the Chesapeake Bay.

So for that, the fact that it is a glorious morning, and we are anxious to hear from all of you here discuss an important topic, one that Senator Capito and I care a great deal about, along with our colleagues.

To those who may not be familiar, this is one of the primary programs in our Country for financing water infrastructure projects. Specifically, this program funds the construction of wastewater treatment facilities.

To better inform our conversation, we have an excellent panel of witnesses joining us today in person. It is great to see you all.

Ms. Dreyfuss-Wells, Mr. Sigmund, Mr. Ramseur, and Ms. Watson, welcome to the Environment and Public Works Committee. This is a committee that gets things done. We are a committee that works together. I am proud to be a part of this committee and have the opportunity to lead with Senator Capito.

Before we dive into the topic of our hearing, I think it is important to recall how we got here. And I am not talking about the train or car or an airplane. But as you may recall, last year this committee worked in an overwhelmingly bipartisan way to draft the Drinking Water and Wastewater Infrastructure Act, legislation that included historic investments in our State Revolving Funds. That bill passed out of this committee unanimously, and later out of the full Senate by a vote of 89 to 2. Those of us on this committee are no strangers to the fact that most legislation doesn't receive votes of 89 to 2 in the U.S. Senate. Our water infrastructure bill was an important exception.

This bill, along with our committee's historic bipartisan highway legislation, served as the cornerstone of the Infrastructure Investment and Jobs Act, which President Biden signed into law right in front of us, right beside us, almost, last November, a special day for all of us, a couple of kids from West Virginia, celebrating the day with a president from Delaware.

Thanks in large part to our committee's efforts, the Environmental Protection Agency is in the process of distributing some \$55 billion to improve drinking water and wastewater systems in communities across this Country. This is the single largest investment in water infrastructure in our Nation's history. As President Biden likes to say, this is a big deal.

[Laughter.]

Senator CARPER. During consideration of our Drinking Water and Wastewater bill in the Senate last year, Senator Capito and I made a commitment to a couple of our colleagues, Senator Kelly and Senator Capito, that we would hold a hearing examining the formula for the Clean Water State Revolving Loan Fund. Today's hearing is our opportunity to begin to better understand what changes, if any, should be made to improve the distribution of funds under this program. Specifically, I look forward to robust discussion on the current formula that EPA uses to distribute funding to States and to territories, and how that formula may be improved to strengthen equity and address unmet needs.

For me, investing in clean water is personal. As Senator Capito knows, my sister and I were born in Beckley, West Virginia, a coal-mining town in the southern part of the State. For the first 6 years of my life and my sister's life in the Mountain State, we lived alongside a stream outside of Beckley, a stream called Beaver Creek.

Sometimes my sister Sheila and I, along with other kids in our small community, would play on the banks of the creek, and try to catch small fish from it, an occasional frog. But we were never allowed to eat the fish or the frogs that we caught there. In part, that was because the nearby septic tanks were not well maintained. As a result, sometimes raw sewage and other pollution would seep into the creek.

At the time, our situation was not too different from many other small communities across that State, the Mountain State, and across the Country. Several years later, after graduating from the Ohio State University, I deployed with my squadron to Southeast Asia as a naval flight officer. In 1969, shortly after I arrived there, I learned that the Cuyahoga River in Cleveland, Ohio had caught on fire. This fire heard around the world served as a wakeup call for our Nation to get serious about addressing pollution, particularly water pollution.

Congress responded by enacting the Clean Water Act in 1972. In the years that followed, communities across our Country applied for grant funding to help build or upgrade wastewater treatment systems. Over time, grant requests greatly exceeded the funding available. During the Reagan administration, a new controversial approach emerged, creation of revolving loan funds administered and managed by each State. I was a Congressman, and had an opportunity to vote on that legislation.

After become law in 1987, these funds were periodically modified in annual spending bills to meet changing needs and increased demand for resources. In more recent years, however, these programs have languished with the authorization for State revolving loan funds in dire need of updating.

That is why, along with our Ranking Member Senator Capito, Senator Duckworth, Senator Lummis, Senator Cardin, and Senator Cramer, and all the members of this committee joined forces to address this need in the Drinking Water and Wastewater Infrastructure Act. There is an acronym for that act that I have never used. It is the Drinking Water and Wastewater Infrastructure Act. Our legislation reauthorized and increased the funding for a Clean Water State Revolving Loan Fund for the first time in nearly 35 years.

With the recent passage of the Bipartisan Infrastructure Law, we have an opportunity to build on this work and to further improve the way we invest in our Nation's infrastructure. That includes having more in-depth conversations about the Clean Water State Revolving Loan Fund formula and what we might consider updating in the program.

More could certainly be done to adapt the formula for changes in climate, changes in population, and changes simply because we are living in an infrastructure age. So as I said at the outset, let's use this hearing today to gain a deeper understanding of all the many factors, at least most of the many factors, in the current Clean Water State Revolving Fund formula. Let's take this time to examine and discuss opportunities for making that distribution more equitable as we go forward.

With that, I am delighted to turn over the microphone to my wing woman, our senior Republican and just a great partner on this issue and a lot of others, Senator Capito.

**OPENING STATEMENT OF HON. SHELLY MOORE CAPITO,
U.S. SENATOR FROM THE STATE OF WEST VIRGINIA**

Senator CAPITO. Thank you, Mr. Chairman. A great statement. I can't start without the images in the video that we saw and the powerful statements by President Zelenskyy. I think it has prob-

ably drained every American, just thinking of the pain. So we are pretty united in our thoughts and certainly in our prayers. Thank you for that moment of silence. I appreciate that.

I want to thank you, Chairman, for calling the hearing, and thank all the witnesses for being with us today. I look forward to your remarks. The Chairman summarized this, but I do think this committee values hearing your perspective on the challenges facing the Nation's wastewater infrastructure as well as your thoughts on effective solutions to address those challenges through the Clean Water State Revolving Fund.

We are all here today to discuss that important issue of updating, possibly, the Clean Water SRF formula itself, which came into sharp focus during our consideration as the Chair said of the Drinking Water and Wastewater Infrastructure Act, DWWIA, around this time last year.

Senator CARPER. I knew there was an acronym there somewhere. [Laughter.]

Senator CAPITO. On that bill's way to enactment of the Infrastructure and Investment and Jobs Act, which I keep calling the BIF. So we are all into our acronyms.

As we committed at that time to colleagues interested in this issue, we should consider updating the formula for the Clean Water SRF in the same bipartisan and thoughtful approach that we undertook in advancing DWWIA to an 89 to 2 vote on the Senate floor. I believe ensuring reliable, modern water infrastructure is a fundamental responsibility of government. Water is not a red or blue issue, it is not a big city or small town problem. It is everybody's and in everybody's best interest.

The issues we are addressing today affect every single American, which is why I am committed to doing the appropriate due diligence and outreach to ensure we come up with a final product that does not leave anyone behind.

Since its inception in 1987, when you voted for it, the Clean Water SRF has been an effective tool to provide much-needed Federal funding to improve our Nation's water and wastewater infrastructure, enjoying broad and consistent bipartisan support at the Federal and State levels. Through the Clean Water SRF, EPA provides funding to States which then issue loans to communities to facilitate infrastructure improvement projects. We know through much testimony and certainly talking to our local government officials and folks who run these systems, many of them are very, very old and antiquated.

Interest on these loans then revolves, providing additional funding for future projects, and a greater investment return for taxpayer dollars. This program has been cost effective and well-utilized, certainly in our State, with EPA leveraging \$45 billion in Federal dollars into more than \$145 billion and assistance to local communities to improve their wastewater treatment systems, protect human health, and reduce pollution.

It is noteworthy to mention that the reason for the SRF's success has been the flexibility given to it in the State revolving fund. Recently, EPA released a SRF memo that takes away or potentially could take away some of that flexibility. I view that as I have other memos by this Administration as an overreach.

In April 2021, Senators Rubio and Scott offered an amendment to the Drinking Water and Wastewater Infrastructure Act which would have changed the formula deployed for 34 years to allocate State Revolving Loan funding. As I mentioned, Chairman Carper and I pledged to Senators Rubio and Scott, and I know this is an issue for Senator Kelly as well, that we would continue to work with them on this issue which spurred today's hearing. I respectfully disagreed with the approach of their amendment, which was ultimately defeated, and would have converted the Clean Water SRF to a wholly population-based formula. This ignores the crucial issue of need, which was baked into the original formula and for States like Delaware and West Virginia, could have had some negative effects.

Need varies across and within the States, based on population growth or reduction, the age or condition of existing infrastructure, and the unique public health environmental challenges and development needs of impacted communities. It is essential to me that rural communities are treated appropriately and that unique challenges in infrastructure deployment are accommodated in any revised Clean Water SRF formula.

This committee and the Congress explicitly acknowledge that need must be assessed and documented in the Clean Water SRF. Section 50220—I know you knew that, you knew what section it was—of the IIJA carried over directly from DWWIA instructs the EPA within 2 years to conduct a clean watersheds needs assessment or survey, along the lines of what the agency already does for the Drinking Water SRF. This information will be essential to any revision of the formula.

I acknowledge that formula allocations set back in 1987 may not adequately address today's needs and demographic shifts. But given the complexity of the issues, we have our work cut out for us. Major changes to the Clean Water SRF should not be rushed and must be the product of a deliberative process here in Congress that allows impacted stakeholders the opportunity to provide the input needed to assure that any legislative action works for all States and types of communities.

It is one thing to draft a law here on Capitol Hill, but quite another to implement it back home. That is why this hearing with this panel of experts and the work that will follow is so very important. I remain committed to working on these clean water issues that are so important to me, the citizens of my State of West Virginia, and my fellow committee members.

With that, Mr. Chairman, I yield back. Thank you.

Senator CARPER. Senator Capito, thank you for a wonderful opening statement.

Now I get to introduce our witnesses. First, Jonathan Ramseur. Is that a French name?

Mr. RAMSEUR. German.

Senator CARPER. German, OK. A specialist in environmental policy from the congressional Research Service. I understand you have worked there for over 16 years. In his role, Mr. Ramseur covers wastewater infrastructure funding issues. We are fortunate today to learn from his expertise in this area. Mr. Ramseur, please pro-

ceed and give your statement. We look forward to receiving it. Thank you.

**STATEMENT OF JONATHAN RAMSEUR, ENVIRONMENTAL
POLICY SPECIALIST, CONGRESSIONAL RESEARCH SERVICE**

Mr. RAMSEUR. Thank you. Good morning, Chairman Carper, Ranking Member Capito, and members of the committee. My name is Jonathan Ramseur, and I am a specialist in environmental policy at the congressional Research Service. I would like to thank the committee for inviting me to testify today on behalf of CRS.

I have been asked by the committee to discuss the Clean Water Act's allotment formula for distributing funds under the Clean Water State Revolving Fund program. I will summarize my written testimony with these brief remarks.

In 1987, amendments to the Clean Water Act established the Clean Water State Revolving Fund program, otherwise known as the SRF program. For the past 30 years, the SRF program has been the key Federal funding program for wastewater infrastructure projects throughout the Country. Each State and Puerto Rico administers its own SRF program. U.S. territories and Indian tribes receive grants directly from EPA rather than administering their own program.

The SRF programs provide financial assistance to a range of recipients supporting a variety of projects and activities including construction of wastewater treatment facilities, stormwater systems, among others. The 1987 Clean Water Act amendments included SRF funding allocation percentages for each State and U.S. territory.

Based on formulas in the House and Senate bills that evolved into the 1987 amendments, Congress likely based the State allotments on some combination of wastewater infrastructure needs and population, among other factors. However, the legislative history does not explicitly describe these factors or how they are weighted in the allotments. These allotments, which provide a minimum share of 0.5 percent to each State, have effectively been in place since the program's establishment.

Since 1987, in coordination with the States, EPA has produced seven infrastructure needs surveys. EPA published its most recent survey in 2016. In addition, the Census Bureau has prepared four census reports. None of this more recent information is reflected in the current statutory funding allocation.

The Water Resources Reform and Development Act of 2014 directed EPA to report to Congress whether the current allotment adequately addresses water quality needs. EPA published this report in 2016. Based on the difference between the current allotments and revised needs surveys and State population estimates, EPA concluded that most States do not currently receive appropriate funds in proportion to their infrastructure needs estimates or population. For example, EPA found that the current formula is inadequate for 39 States and territories compared with the most recent needs survey.

The SRF program is the primary Federal assistance program for wastewater infrastructure and the allotment formula has been one of the more debated issues during considerations of Clean Water

Act authorization legislation. Considerations of States' potential allotment decreases or increases bear heavily on the discussion of policy choices reflected in alternative formulations.

If Congress chooses to deliberate on amendments to the SRF program allotment to the States, policymakers would have a range of options including those provided in EPA's 2016 report. These options consist of different combinations of needs, population and other factors. For example, policymakers could include limitations similar to EPA's options, namely the constraints on the magnitude of decreases or increases a State would face under a revised formula.

In addition, Congress may look to the allocation formula of other water infrastructure programs such as the Drinking Water State Revolving Fund program. Under this program, EPA allots funding to the States based on the results of the most recent needs survey for drinking water, which the Safe Drinking Water Act requires EPA to prepare every 4 years.

This concludes my brief remarks. Thank you again for the invitation to appear today. I will be pleased to address any questions you may have.

[The prepared statement of Mr. Ramseur follows:]



Congressional Research Service
Informing the legislative debate since 1914

TESTIMONY

Statement of

Jonathan L. Ramseur
Specialist in Environmental Policy

Before

Committee on Environment and Public Works
U.S. Senate

Hearing on

“Oversight of the Clean Water State Revolving Loan Fund Formula”

March 16, 2022

Congressional Research Service

7-5700

www.crs.gov

<Product Code>

Introduction

Good afternoon Mr. Chairman, Ranking Member, and Members of the Committee. My name is Jonathan Ramseur and I am a Specialist in Environmental Policy in the Congressional Research Service (CRS). On behalf of CRS, I would like to thank the Committee for inviting me to testify here today. I have been asked by the Committee to discuss the Clean Water Act allotment formula for distributing funds under the Clean Water State Revolving Fund program to states, U.S. territories, and Indian tribes. This program is the primary federal funding program for wastewater and stormwater infrastructure.

My testimony will provide historical background of the program, the allotment formula for distributing funds to the states, proposed and potential options for adjusting the allotment, and associated considerations. Please note that CRS does not provide recommendations or take a position on specific legislation.

Federal Funding History for Wastewater Infrastructure

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act, or Clean Water Act (CWA), which was originally enacted in 1948.¹ Comprehensive amendments in 1972 revised the act and provided its current framework.² The 1972 CWA established programs and requirements for water quality improvement that have since been expanded. Industries, municipalities, and other entities continue to implement these CWA requirements.

Prior to 1972, the federal government administered a comparatively small program of aid for constructing municipal wastewater treatment plants.³ Under this program, the federal government allocated funding to the states on the basis of population. There was no statutory formula. Nor was there a systematic process for the federal government or states to estimate and report on funding needs for sewage treatment.

Title II of the 1972 CWA authorized grants to states for wastewater treatment plant construction under a program administered by the U.S. Environmental Protection Agency (EPA). Federal funds were provided through annual appropriations under a state-by-state allocation formula contained in the act. States used their annual allotments to make grants to local governments to build or upgrade categories of wastewater treatment projects, including treatment plants and related sewer infrastructure.

The Water Quality Act of 1987 (P.L. 100-4) amended the CWA to establish the Clean Water State Revolving Fund program, discussed below. After a two-year transition period, this program effectively replaced the CWA Title II grants program. Between FY1973 and FY1990, Congress appropriated nearly \$52 billion under the CWA Title II program, representing the largest nonmilitary public works program since the Interstate Highway System.

Figure 1 illustrates the history of EPA wastewater infrastructure appropriations from FY1973 to FY2026 in both nominal dollars and inflation-adjusted (2018) dollars. The increase in FY2009 was due to \$4.0 billion in emergency supplemental appropriations from the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The appropriations for FY2022 through FY2026 include emergency supplemental

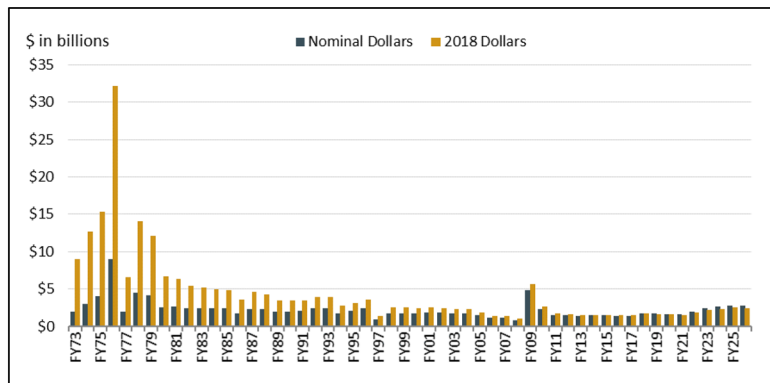
¹ For more information, see CRS Report RL30030, *Clean Water Act: A Summary of the Law*, by Laura Gatz.

² Federal Water Pollution Control Act Amendments in 1972 (P.L. 92-500); codified generally as 33 U.S.C. §§1251-1387.

³ The Water Pollution Control Act of 1948 (P.L. 80-845) first started the federal aid to municipal wastewater treatment authorities.

appropriations provided in the Infrastructure Investment and Jobs Act (IIJA, P.L. 117-58). The figure does not include funding through the annual appropriations process for FY2022.⁴

Figure 1. EPA Wastewater Infrastructure Annual Appropriations
Adjusted (\$2018) and Not Adjusted for Inflation (Nominal)



Source: Prepared by CRS using information from annual appropriations acts, committee reports, and explanatory statements presented in the Congressional Record. Amounts reflect applicable rescissions and supplemental appropriations, including \$4 billion in the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). Constant dollars calculated from Office of Management of Budget, Table 10.1, "Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2026," <https://www.whitehouse.gov/omb/historical-tables/>. The deflator values used for FY2021 through FY2026 are estimates.

Notes: The funding levels for FY2022 through FY2026 are likely to change reflecting funding for the CWSRF through annual appropriations. As of March 10, 2022, the House and Senate have passed an FY2022 omnibus appropriations bill (H.R. 2471). It is now awaiting the President's signature. The Consolidated Appropriations Act, 2022 would provide \$1.639 billion for the CWSRF program in FY2022. Of this amount, \$443 million would be provided as "Community Project Funding Items/Congressionally Directed Spending." For more historical details, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramseur and Mary Tiemann.

Estimates of Wastewater Infrastructure Funding Needs

The federal government published the first funding needs survey for wastewater infrastructure in 1968.⁵ This early survey was less comprehensive than subsequent surveys, containing estimates for a relatively narrow range of wastewater infrastructure categories. The 1972 CWA directed the EPA to prepare wastewater infrastructure needs surveys. CWA Section 516(b)(1)(B) states

The Administrator, in cooperation with the States, including water pollution control agencies and other water pollution control planning agencies, shall make ... a detailed estimate, biennially revised, of the cost of construction of all needed publicly owned treatment works in all of the States and of the cost of construction of all needed publicly owned treatment works in each of the States.

⁴ As of March 10, 2022, the House and Senate have passed an FY2022 omnibus appropriations bill (H.R. 2471), for presentment to the President. The act would provide \$1.639 billion for the CWSRF program in FY2022. Of this amount, \$443 million would be provided as "Community Project Funding Items/Congressionally Directed Spending."

⁵ This survey was published in response to a general requirement in the 1966 Clean Water Restoration Act (P.L. 89-753) for an annual report on "the economics of clean water."

Since the enactment of the 1972 CWA, EPA has published 16 Clean Watersheds Needs Surveys. Since 1996, EPA has typically published a new survey every four years. EPA published its most recent survey in 2016, documenting infrastructure needs from 2012. In this survey, EPA estimated that the capital cost of wastewater infrastructure needed to meet statutory water quality and public health requirements and objectives exceeds \$270 billion over a 20-year period.⁶ Other organizations using different methods have estimated larger costs for wastewater infrastructure needs.⁷

Clean Water State Revolving Fund Program

Amendments to the CWA in 1987 established the Clean Water State Revolving Fund (CWSRF) program. The CWSRF program is the key federal funding program that helps finance wastewater infrastructure projects throughout the country.⁸ As amended in 2014, the CWSRF program provides financial assistance to a range of eligible recipients, including municipalities, state agencies, and certain private and nonprofit entities, to support a range of eligible projects and activities. These include construction of wastewater treatment works and stormwater systems, management of nonpoint source pollution, and replacement of decentralized systems (e.g., septic tanks), among others.⁹

The CWSRF program is implemented at the state level, with each state and Puerto Rico administering its own SRF program.¹⁰ Using annual appropriations, EPA makes grants to states to capitalize their state revolving loan funds. EPA allots CWSRF funds among states based on a CWA statutory formula, discussed below, which provides a minimum share of 0.5% to each state and has effectively been in place since the beginning of the program in 1987. Each year, each state must match 20% of its annual capitalization grant and develop an intended use plan (IUP) indicating how the allotted funds will be used.¹¹ The CWA requires EPA to annually review states' implementation activities and periodically audit state programs.¹²

SRF programs primarily provide subsidized loans to publicly owned treatment works. Subsidized loans reduce the cost of such infrastructure projects to communities. Communities repay loans into the fund, thus making resources available for projects in other communities. Over time, the federal grants and state match—combined with funds from loan repayments, leveraged bonds, and other sources—are intended to generate an ongoing, revolving source of water infrastructure funding at the state level.

Prior to 2014, states were authorized to provide CWSRF financial assistance for a range of projects and activities that was more narrow than the list of eligible projects and activities available today. This earlier list generally included the construction or repair of publicly owned municipal wastewater treatment plants, related equipment and piping, and stormwater systems. CWA Section 602 requires all funds in the CWSRF resulting from federal capitalization grants first be used to assure compliance with enforceable

⁶ See EPA, *Clean Watersheds Needs Survey (CWNS) Report to Congress—2012*, 2016, <https://www.epa.gov/cwns>.

⁷ For example, see American Society of Civil Engineers, *Infrastructure Report Card*, Wastewater, 2021, <https://infrastructurereportcard.org/wp-content/uploads/2020/12/Wastewater-2021.pdf>.

⁸ 33 U.S.C. §§1381-1387. For more details regarding the history of the CWSRF and its predecessor grant program in CWA Title II, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramsaur and Mary Tiemann.

⁹ 33 U.S.C. §1383.

¹⁰ The CWA requires EPA to provide direct grants to the District of Columbia, the U.S. Virgin Islands, American Samoa, Guam, the Commonwealth of Northern Marianas, and Indian tribes for wastewater infrastructure improvements (33 U.S.C. §1362 and §1377). The funding for the District of Columbia, U.S. territories, and Indian tribes is part of the total SRF appropriations to EPA.

¹¹ 33 U.S.C. §1386.

¹² 33 U.S.C. §1386.

deadlines, goals, and requirements of the act, including municipal compliance.¹³ After satisfying the “first use” requirement, funds may be used to implement other eligible uses. Prior to 2014, additional eligible uses included nonpoint source management programs and estuary activities in approved State Nonpoint Management Programs and estuarine Comprehensive Conservation and Management Plans, respectively.¹⁴

In 2014, the Water Resources Reform and Development Act of 2014 (WRRDA; P.L. 113-121) amended the authorized, adding several projects and activities, including

- measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water;
- replacement of decentralized treatment systems (e.g., septic tanks);
- energy-efficiency improvements at treatment works;
- reuse and recycling of wastewater or stormwater; and
- security improvements at treatment works.

In 2018, the America's Water Infrastructure Act of 2018 (AWIA; P.L. 115-270) amended the list of eligible activities to allow qualified nonprofits to provide assistance to certain individuals for the repair or replacement of existing decentralized wastewater treatment systems or for the connection of an individual household to a centralized publicly owned treatment works.

Although the CWSRF was originally established as a loan program, Congress has modified this framework over time to allow for other types of assistance. Beginning with the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5), states were required to use at least 50% of their ARRA funds to “provide additional subsidization to eligible recipients in the form of forgiveness of principal, negative interest loans or grants or any combination of these.” Subsequent appropriation acts have included similar conditions, with varying percentages that states were required to provide as additional subsidization. In 2014, WRRDA amended the CWA to *allow* states, under certain conditions, to use their CWSRF programs to provide additional subsidization, generally up to 30% of the state’s annual allotment.¹⁵ In addition, in 2021, IJA amended the CWA to direct states to use at least 10% of their capitalization grant for additional subsidization. Thus, the CWA now requires states to use 10% of their annual SRF allotment for additional subsidization, and provides the discretion for them to use (generally) up to 30% for this purpose.

Figure 2 illustrates the enacted appropriations for the CWSRF program. The figure depicts regular appropriations between FY1989 and FY2021. As the figure indicates, regular appropriation levels have remained relatively consistent in recent years. The figure also illustrates (1) the supplemental appropriations from the American Recovery and Reinvestment Act of 2009, which provided \$4 billion in FY2009, and (2) supplemental appropriations from the Infrastructure Investment and Jobs Act (IIJA, P.L. 117-58), which provided supplemental appropriations for FY2022 through FY2026.¹⁶

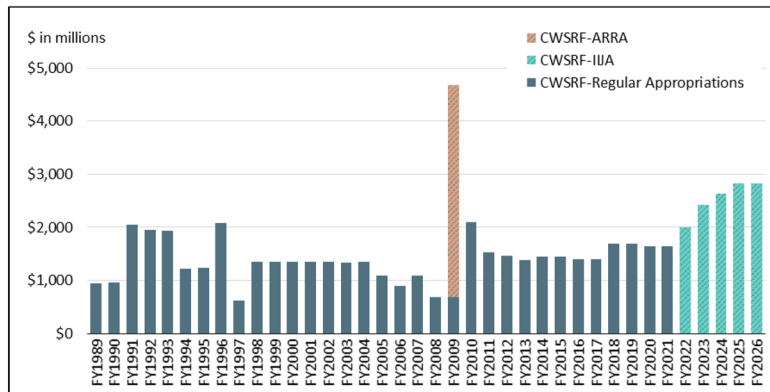
¹³ 33 U.S.C. §1382(b)(5).

¹⁴ 33 U.S.C. §1383(c).

¹⁵ 33 U.S.C. §1383(i).

¹⁶ For more information, see CRS Report R46892, *Infrastructure Investment and Jobs Act (IIJA): Drinking Water and Wastewater Infrastructure*, by Elena H. Humphreys and Jonathan L. Ramseur.

Figure 2. CWSRF Appropriations: FY1989-FY2026
(not adjusted for inflation)



Source: Prepared by CRS using information from annual appropriations acts, ARRA, IIJA, committee reports, and explanatory statements presented in the Congressional Record.

Notes: ARRA = American Recovery and Reinvestment Act of 2009 (P.L. 111-5); IIJA = Infrastructure Investment and Jobs Act (P.L. 117-58), signed by President Biden on November 8, 2021. IIJA provided supplemental appropriations for the CWSRF for FY2022 through FY2026. As of the date of this testimony, Congress has not enacted appropriations for FY2022. Amounts reflect applicable rescissions but do not include supplemental appropriations for specific locations in P.L. 116-20 and P.L. 116-113 or special purpose project grants (often referred to as "earmarks"). For more information, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramseur and Mary Tiemann.

The funding levels for FY2022 through FY2026 are likely to change reflecting funding for the CWSRF through annual appropriations. As of March 10, 2022, the House and Senate have passed an FY2022 omnibus appropriations bill (H.R. 2471), for presentment to the President. The Consolidated Appropriations Act, 2022 would provide \$1.639 billion for the CWSRF program in FY2022. Of this amount, \$443 million would be provided as "Community Project Funding Items/Congressionally Directed Spending." Some may refer to this funding as "earmarks."¹⁷

History of CWA Funding Allotments¹⁸

Prior to the 1972 CWA, the federal government administered a comparatively small program of aid for constructing municipal wastewater treatment plants.¹⁹ Under this program, assistance was allocated to

¹⁷ For more information, see CRS Report R46722, *Community Project Funding: House Rules and Committee Protocols*, by Megan S. Lynch.

¹⁸ For a more detailed and comprehensive discussion, see CRS Report RL31073, *Allocation of Wastewater Treatment Assistance: Formula and Other Changes*, by Jonathan L. Ramseur.

¹⁹ The Water Pollution Control Act of 1948 (P.L. 80-845) started the trickle of federal aid to municipal wastewater treatment authorities that grew in subsequent years. It authorized loans for treatment plant construction. With each successive statute in the 1950s and 1960s, federal assistance to municipal treatment agencies increased. A grant program replaced the loan program; the amount of authorized funding went up; the percentage of total costs covered by federal funds was raised; and the types of project costs deemed grant-eligible were expanded.

states on the basis of population. There was no statutory formula. Nor was there a systematic process for the federal government or states to estimate and report on funding needs for sewage treatment.

Congress established a statutory formula governing distribution of financial aid for municipal wastewater treatment in the 1972 CWA. Between 1972 and 1987, Congress modified the formula and incorporated other eligibility changes multiple times, generating debate on each occasion. **Table 1** provides a general summary of the components of the different allotment formulas used for funding wastewater infrastructure, from the pre-1973 program to the CWA Title II construction grant program that was in effect during most of the 1970s and 1980s, to the CWSRF program established in 1987 that is in effect today. In the table, the term “total needs” refers to funding needs identified by states for all categories of projects and water quality activities eligible for assistance. The term “partial needs” refers to a subset of eligible project categories, primarily construction or upgrades to comply with the act’s minimum requirement that municipalities achieve secondary treatment of wastewater. When population was used as a factor, differences occurred over whether a current or future year population estimate was appropriate.

Table 1. Needs and Population Components of CWA Allotments

Fiscal Year	Total Needs	Partial Needs	Population
Pre-1973	—	—	100%
1973-1974	100%	—	—
1975-1976	50%	50%	—
1977 (P.L. 94-369)	—	50%	50%
1977 (P.L. 95-26)	25%	50%	25%
1978-1982	25%	50%	25%
1983-1986	12.5%	50%	37.5%
1987-present	uncertain	uncertain	uncertain

Source: Excerpted from CRS Report RL31073, *Allocation of Wastewater Treatment Assistance: Formula and Other Changes*, by Jonathan L. Ramseur.

In addition to the needs and population components, earlier allotment formulas contained other factors not identified in the above table. In particular, on several occasions when Congress amended state allotments, the allotment change included “hold harmless” or “minimum share” provisions. These factors were added to minimize potential disruptions when new allocations were adopted.

FY1973-FY1974 Allotment

The 1972 CWA provided the first statutory allocation formula, governing state-by-state allocations in FY1973 and FY1974. Although the Senate favored retaining population as the sole allocation factor, the final version’s allocation scheme was entirely needs-based. A rationale for changing to a needs basis for grants allocation despite limitations of available needs information was explained in the House Public Works Committee’s report on the 1972 legislation.²⁰

This needs formula is a sound basis for allotting funds since our experience to date clearly demonstrates that there is no necessary correlation between the financial assistance needed for waste treatment works in a given State and its population.

²⁰ U.S. Congress, Senate Committee on Public Works, *A Legislative History of the Water Pollution Control Act Amendments of 1972*, January 1973, Serial No. 93-1. 93rd Cong., 1st sess. p. 780.

The Committee is fully aware that at the present time there is no satisfactory estimate of the total funds required by the States for construction of publicly owned treatment works... However [the 1972 Needs Survey] report does provide some measure of the relative needs of the various States and in the absence of any better measure has been incorporated in the bill for the determination of the State allotments for the fiscal years 1973 and 1974.

FY1975-FY1976 Allotment

EPA's 1973 Needs Survey provided needs estimates by state for different categories of wastewater infrastructure. EPA recommended that the revised allocation formula should only include the costs of certain categories of need estimates, namely the categories providing treatment works to achieve secondary treatment. In addition, EPA reported that its estimates were incomplete for certain categories and not consistent among the states.

Both chambers offered proposals to amend the allocation. The Senate version recommended a distribution based 75% on partial needs and 25% on population.²¹ The House and final version included an allocation that provided equal weight to total needs and partial needs. In addition, the revised allocation included a hold harmless provision, under which no state would receive less in construction grant funds than it was allotted under the previous allocation.

FY1977 Allotment

For the FY1977 allocation, Congress provided funds under two appropriations acts, the Public Works Employment Appropriations Act of 1976 (P.L. 94-369) and the Supplemental Appropriations Act of 1977 (P.L. 95-26), each using a different allocation formula. The first act was a key development, as it reintroduced population as a factor in state allocation.

Prior to such enactments, EPA submitted a needs survey to Congress in 1975, and recommended that future allocation formulas focus on needs in particular key categories, including secondary treatment. At the time EPA Administrator Russell Train stated

There is serious doubt, however, that we will be able to provide accurate estimates of the total national needs, or of needs for each State, which would form an equitable basis for allocation of construction grant funds. Even [secondary treatment and other key categories] will be very difficult to refine for purposes of allocation because of the large variations in approach used by the States in estimating needs in these categories.

I believe that the fundamental differences in reported cost estimates for the construction of publicly owned wastewater treatment facilities highlighted by the last two surveys confirms our concerns about basing the allocation of Federal funds on "needs," at least as they are currently reported.²²

Based on concerns about "total needs" estimates, the Public Works Employment Appropriations Act of 1976 only included "partial needs" in the revised allocation and reintroduced a population factor. About a year later, the Supplemental Appropriations Act of 1977 included an allocation formula based on total needs (25%), partial needs (50%), and population (25%).

FY1978-FY1982 Allotment

The 1977 CWA amendments (P.L. 95-217) provided the allocation formula for FY1978 through FY1982, which included total needs (25%), partial needs (50%), and population (25%). The allocation provided that no state would receive less than one-half of one percent of total funds. The conference committee

²¹ S. 2812 (93rd Congress).

²² U.S. Senate Committee on Public Works, Subcommittee on Environmental Pollution, *The Environmental Protection Agency's 1974 Needs Survey*, Hearing, 93rd Cong., 2nd sess., September 11, 1974, Serial No. 93-H53. p. 15.

borrowed elements from both the Senate and House proposed legislation (S. 1952 and H.R. 3199, respectively). Although the ratio in the final version was the same as H.R. 3199, it appears that conferees made some changes to allocation percentages that were not explained in the legislative history.

FY1983-FY1986 Allotment

The Municipal Wastewater Treatment Construction Grant Amendments of 1981 (P.L. 97-117) provided the allotment formula for CWA Title II grants from FY1983 through FY1986. For FY1982, the allotment mirrored the formula in the House legislation (H.R. 4503). For FY1983 through FY1985, the act used the average of the House and Senate formulas (S. 1716). This resulted in a combination of total needs (12.5%), partial needs (50%), and population (37.5%). The formula included a hold harmless provision that no state would receive less than 80% of what it would have received under the previous allocation, which was established in the 1977 CWA amendments.

FY1987-Present Day Allotment

The 1987 CWA amendments created the CWSRF program and the funding allocation percentages that generally remain in effect to this day.²³ The legislative history of the 1987 amendments does not include an explicit statement describing the factors that went into the final allocation formula.²⁴

During consideration of the legislation, the House favored retaining the formula adopted in 1981, which included total needs, partial needs, and population factors. The Senate formula was essentially needs-based with an unquantifiable population factor. The two formulas merged in ways that are not clear from available public documents, creating the set allocation percentages contained in CWA Section 205.²⁵ The allotments provide each state with a minimum of 0.5% of the total appropriation.

Highlights of Results from EPA's 2016 Report

The Water Resources Reform and Development Act of 2014 (P.L. 113-121) directed EPA to prepare a report to Congress "to determine whether [the current allotment] formula adequately addresses the water quality needs of eligible States, U.S. territories, and Indian tribes."²⁶ EPA completed its report in 2016.²⁷ EPA noted in its report that since the original allotment in 1987, the Census Bureau has provided three population estimates (1990, 2000, and 2010), and EPA and the states have updated the needs estimates seven times.²⁸ In addition, the more recent needs estimates include an expanded list of wastewater infrastructure categories.

In its report, EPA identified a state's current allotment as "adequately reflecting its water quality needs" if it is within 10% of its potential allotment using revised needs and population data. EPA concluded "most

²³ In 1995, three districts of the U.S.-administered United Nations Trust Territory of the Pacific Islands, which previously had been eligible for CWA funds, became sovereign states by adopting a Compact of Free Association. As of FY1999, the Trust Territory, which had been receiving 0.1295% of available funds, was no longer eligible for grants under the act. EPA made an administrative adjustment to allotment totals for all other recipients for FY2000 and onwards to reflect this change.

²⁴ CWA Legislative History.

²⁵ 33 U.S.C. §1285(c)(3).

²⁶ In this context, the U.S. territories include the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands.

²⁷ EPA, *Review of the Allotment of the Clean Water State Revolving Fund (CWSRF), Report to Congress*, 2016, https://www.epa.gov/sites/production/files/2016-05/documents/review_of_the_allotment_of_the_cwsrf_report.pdf (hereinafter EPA Allotment Report).

²⁸ Since EPA's 2016 report, the Census Bureau has published the 2020 Census report.

states do not currently receive appropriated funds in proportion to their reported water quality needs or population, which demonstrates the inadequacy of the current allotment.”²⁹ In particular, EPA concluded:

- Compared with an allotment based on the most recent needs survey, EPA found the current formula adequately reflects the water quality needs for 17 states.
- Compared with an allotment calculated using 2010 population data, EPA found the current formula reflects the water quality needs for 14 states.

Table A-1 (in the **Appendix** of this testimony) compares the current CWSRF allotment percentages to allotment percentages based on (1) 2021 needs estimates and (2) 2010 Census data. These comparisons illustrate states’ needs estimates and populations have changed since the 1987 allocation.

EPA’s report provided three possible options for updating the allotment formula. EPA’s options included varying combinations of the following data elements:

1. **EPA Needs Survey Data from 2012:** Although each of EPA’s options includes a needs factor, EPA noted that the 2012 needs survey “underestimates” water quality needs.³⁰ For example, some states did not report data for all of the categories, including stormwater management and decentralized wastewater treatment.
2. **Population data from 2010:** EPA noted that Congress has historically included population as a factor in prior allocation formulas and “was very likely a factor in developing the original CWSRF allotment.” EPA chose to use the 2010 population count because “counts from the decennial census generally are regarded as more accurate on a State-by-State basis than population projections.”³¹
3. **Water quality impairment data:** EPA stated that this dataset might “compensate for the lack of completeness in the 2012 needs data,” particularly for nonpoint source pollution, stormwater, and decentralized wastewater treatment categories.³² However, EPA noted some limitations in this factor. In particular, the data do not indicate the extent or number of impairments (i.e., “all impaired waters is considered equal”). In addition, this factor might favor states with relatively longer shoreline miles (coastal states or Great Lakes states).
4. **Ratio of a state’s CWSRF assistance to its capitalization grant:** More than half of the states currently leverage their SRFs by using federal capital grants and state matching funds as collateral to borrow in the public bond market, thus increasing the pool of available funds for project lending. Cumulatively since 1988, leveraged bonds have comprised about 34% of total CWSRF funds available for projects.³³ This factor is a measure of the amount of CWSRF assistance provided by a state compared to its total CWSRF allocation for the most recent 10-year period. EPA points that that this factor might provide an incentive for a state to leverage its allotment even if it has no financial need.

Table 2 indicates the factors and their respective percentage weights that EPA included in each of the agency’s three allotment options. In each of the three options, EPA limits a state’s potential allotment decrease to 25% and potential increase to 200%.

²⁹ EPA Allotment Report, p. 5.

³⁰ EPA Allotment Report, p. 9.

³¹ EPA Allotment Report, p. 9.

³² EPA Allotment Report, p. 10.

³³ EPA, Clean Water State Revolving Fund (CWSRF) National Information Management System Report, “U.S. National Total,” <https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports>.

Table 2. Weight of Factors Used in EPA's Allotment Options

	2012 Needs Data	2010 Population	Water Quality	Ratio of CWSRF Assistance to Capitalization Grant
Option 1	70%	30%		
Option 2	50%	30%	20%	
Option 3	50%	30%	10%	10%

Source: EPA, *Review of the Allotment of the Clean Water State Revolving Fund (CWSRF)*, Report to Congress, 2016, Table 2, https://www.epa.gov/sites/production/files/2016-05/documents/review_of_the_allotment_of_the_cwrsf_report.pdf.

Table 3 provides the results from each of EPA's three options. The table also includes the results from the three options if the limitations on decreases and increases are removed. Results in the table are presented as follows:

- Column A indicates the revised allotment under the respective option.
- Column B indicates the percentage change from the current allotment, with the limitations EPA imposed on the percentage decreases and increases.
- Column C indicates the results without constraints on decreases or increases.

In the table (and in CWA Section 205), a state's CWSRF allotment is presented in decimal form. For example, California's current allotment is 0.0726, which equates to 7.26% of the total CWSRF allotment. California's allotment under option 1 would be 0.0907 (Column A), which equates to 9.07% of the total allotment. Compared to its current allotment, California's allotment would increase by 25% under Option 1 (Column B). If the limitations for decreases and increases are removed from Option 1, California's allotment would increase by 31%.

Table 3. Comparison of Results from EPA's CWSRF Allotment Options and Percentage Change from Current Allotment

State or Territory	Current Allotment	Option 1			Option 2			Option 3		
A = Revised Allotment										
B = Percentage Change from Current Allotment with decreases limited to 25% and increases to 200%										
C = Percentage Change from Current Allotment with no limits on decreases or increases										
		A	B	C	A	B	C	A	B	C
Alabama	0.0114	0.0110	-3%	2%	0.0107	-6%	-1%	0.0111	-2%	2%
Alaska	0.0061	0.0050	-18%	-18%	0.0050	-18%	-18%	0.0050	-18%	-18%
Arizona	0.0069	0.0203	196%	216%	0.0167	143%	154%	0.0203	196%	231%
Arkansas	0.0066	0.0050	-25%	-25%	0.0050	-25%	-25%	0.0059	-11%	-7%
California	0.0726	0.0907	25%	31%	0.0855	18%	23%	0.0833	15%	20%
Colorado	0.0081	0.0155	91%	101%	0.0133	64%	72%	0.0147	81%	89%
Connecticut	0.0124	0.0138	11%	17%	0.0116	-7%	-2%	0.0139	12%	17%
Delaware	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
District of Columbia	0.0050	0.0067	34%	41%	0.0050	0%	5%	0.0056	13%	18%
Florida	0.0343	0.0695	103%	113%	0.0913	166%	179%	0.0766	123%	133%
Georgia	0.0172	0.0146	-15%	-11%	0.0140	-18%	-15%	0.0155	-10%	-6%
Hawaii	0.0079	0.0060	-24%	-20%	0.0059	-25%	-31%	0.0070	-11%	-7%
Idaho	0.0050	0.0050	0%	0%	0.0061	23%	29%	0.0068	37%	43%
Illinois	0.0459	0.0344	-25%	-41%	0.0344	-25%	-47%	0.0344	-25%	-44%
Indiana	0.0245	0.0225	-8%	-3%	0.0199	-19%	-15%	0.0217	-11%	-8%
Iowa	0.0137	0.0103	-25%	-38%	0.0103	-25%	-41%	0.0103	-25%	-22%
Kansas	0.0092	0.0108	18%	24%	0.0105	15%	20%	0.0114	25%	30%
Kentucky	0.0129	0.0176	36%	43%	0.0144	12%	17%	0.0163	26%	31%
Louisiana	0.0112	0.0140	26%	32%	0.0332	198%	286%	0.0279	150%	161%
Maine	0.0079	0.0059	-25%	-27%	0.0059	-25%	-36%	0.0061	-22%	-19%
Maryland	0.0246	0.0323	32%	38%	0.0291	18%	24%	0.0288	17%	22%
Massachusetts	0.0345	0.0259	-25%	-23%	0.0259	-25%	-37%	0.0259	-25%	-30%
Michigan	0.0437	0.0327	-25%	-62%	0.0393	-10%	-6%	0.0327	-25%	-32%
Minnesota	0.0187	0.0140	-25%	-44%	0.0179	-4%	0%	0.0157	-16%	-12%
Mississippi	0.0091	0.0076	-17%	-13%	0.0070	-24%	-20%	0.0081	-11%	-7%
Missouri	0.0281	0.0281	0%	5%	0.0225	-20%	-16%	0.0236	-16%	-13%
Montana	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
Nebraska	0.0052	0.0073	40%	47%	0.0063	22%	27%	0.0077	49%	55%
Nevada	0.0050	0.0092	84%	93%	0.0087	74%	82%	0.0097	94%	102%

State or Territory	Current Allotment	Option 1			Option 2			Option 3		
New Hampshire	0.0101	0.0076	-25%	-43%	0.0076	-25%	-39%	0.0076	-25%	-33%
New Jersey	0.0415	0.0508	22%	29%	0.0416	0%	5%	0.0431	4%	8%
New Mexico	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
New York	0.1121	0.0875	-22%	-18%	0.0840	-25%	-31%	0.0840	-25%	-31%
North Carolina	0.0183	0.0201	10%	15%	0.0202	10%	15%	0.0208	13%	18%
North Dakota	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
Ohio	0.0572	0.0467	-18%	-14%	0.0429	-25%	-23%	0.0429	-25%	-23%
Oklahoma	0.0082	0.0086	5%	11%	0.0092	12%	17%	0.0107	30%	35%
Oregon	0.0115	0.0119	4%	10%	0.0119	4%	8%	0.0125	9%	13%
Pennsylvania	0.0402	0.0302	-25%	-30%	0.0302	-25%	-37%	0.0302	-25%	-35%
Puerto Rico	0.0132	0.0099	-25%	-21%	0.0099	-25%	-27%	0.0099	-25%	-24%
Rhode Island	0.0068	0.0052	-24%	-20%	0.0051	-25%	-27%	0.0084	23%	29%
South Carolina	0.0104	0.0078	-25%	-52%	0.0078	-25%	-45%	0.0078	-25%	-33%
South Dakota	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
Tennessee	0.0147	0.0111	-25%	-33%	0.0111	-25%	-32%	0.0111	-25%	-23%
Texas	0.0464	0.0483	4%	10%	0.0476	3%	7%	0.0471	2%	6%
Utah	0.0053	0.0050	-7%	-7%	0.0050	-7%	-7%	0.0053	0%	4%
Vermont	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
Virginia	0.0208	0.0290	40%	47%	0.0274	32%	38%	0.0284	37%	43%
Washington	0.0177	0.0171	-3%	2%	0.0156	-12%	-8%	0.0165	-7%	-3%
West Virginia	0.0158	0.0119	-25%	-36%	0.0119	-25%	-46%	0.0119	-25%	-41%
Wisconsin	0.0274	0.0206	-25%	-27%	0.0206	-25%	-31%	0.0206	-25%	-31%
Wyoming	0.0050	0.0050	0%	0%	0.0050	0%	0%	0.0050	0%	0%
American Samoa	0.0054	0.0041	-25%	-58%	0.0041	-25%	-58%	0.0041	-25%	-58%
Guam	0.0039	0.0063	61%	110%	0.0063	61%	99%	0.0063	61%	108%
Northern Mariana Islands	0.0025	0.0023	-11%	-11%	0.0023	-11%	-11%	0.0023	-11%	-11%
Virgin Islands	0.0031	0.0024	-25%	-28%	0.0024	-25%	-14%	0.0024	-25%	-26%

Source: Prepared by CRS. Data from EPA, *Review of the Allotment of the Clean Water State Revolving Fund (CWSRF)*, Report to Congress, 2016, Tables C-1 through C-4, https://www.epa.gov/sites/production/files/2016-05/documents/review_of_the_allotment_of_the_cwsrf_report.pdf.

Notes: Although the table in CWA Section 205(c) provides a total of 0.25% for the U.S. territories, appropriations acts have increased this total annual allotment to 1.5% since FY2019. EPA considers the “current allotment” to include a 1.5% total allotment to the territories.

Table 4 includes additional analysis from EPA's report. The table assesses the potential allotments from the three options by grouping states' results into several categories, which generally include increases, decreases, and the minimum allotment (0.5%). As the table indicates, the number of states in each category is similar across the three options that include limitations. For example, in the limited options, the number of states with decreased allotments ranged from 28 to 30, and the number of states with increases less than 100% ranged from 15 to 18.

The table also illustrates the role that the limitations play in the options' results. If the allotment limits are not included, a number of states would potentially face decreases greater than 25% and more states would receive increases above 100%. For example, 13 states would have allotment decreases greater than 25% under Option 1. In addition, the results yield a wider range under the non-constrained options, ranging from a decrease of 62% (Michigan) to an increase of 216% (Arizona).

Table 4. EPA's Comparison of Potential Allotment by Option

Number of States with a Potential Allotment Result						
	Increase of Less than 100%	Increase of 100% or More	Decrease	Decrease More than 25%	Remain at Minimum Allocation (0.5%)	Range of Results
Option 1 – limited	17	2	29	NA	8	-25% - 196%
Option 2 – limited	15	3	30	NA	7	-25% - 198%
Option 3 – limited	18	3	28	NA	7	-25% - 197%
	Increase of Less than 100%	Increase of 100% or More	Decrease of 25% or Less	Decrease More than 25%	Remain at Minimum Allocation (0.5%)	Range of Results
Option 1 – not limited	18	4	13	13	8	-62% - 216%
Option 2 – not limited	17	3	14	15	7	-59% - 286%
Option 3 – not limited	18	5	15	11	7	-59% - 231%

Source: Prepared by CRS. Data from EPA, *Review of the Allotment of the Clean Water State Revolving Fund (CWSRF), Report to Congress, 2016*, Tables 3 and 4, https://www.epa.gov/sites/production/files/2016-05/documents/review_of_the_allotment_of_the_cwrsf_report.pdf.

Allotment Formulas in Related Programs

The following sections describe other water infrastructure grant programs and the allotment formulas used to distribute funds eligible recipients, namely states, U.S. territories, and Indian tribes.

Drinking Water State Revolving Fund Program³⁴

The Safe Drinking Water Act (SDWA) authorizes the Drinking Water State Revolving Fund (DWSRF) program, the primary federal financial assistance program for drinking water infrastructure. SDWA Section 1452 directs EPA to use annual DWSRF appropriations to make “capitalization grants” to states (including Puerto Rico and the District of Columbia).³⁵ From these funds, states make primarily subsidized loans to public water systems for projects needed for SDWA compliance or to further the act’s public health protection goals.

Generally analogous to the CWA needs estimates for wastewater infrastructure, the SDWA directs EPA to assess the “capital improvement needs” of eligible public water systems every four years.³⁶ In contrast to the CWA, which includes a statutory allotment for SRF capitalization grants, SDWA directs EPA to distribute DWSRF funds among the states based on the results of the most recent quadrennial needs survey, with each state receiving at least 1% of the available funds.³⁷

SDWA directs or authorizes EPA to set aside amounts of the DWSRF appropriation for various program purposes before allotting the remaining funds among the states. EPA calculates the amount available for allotment among the states after deducting amounts reserved for tribal grants and grants for territories, unregulated contaminant monitoring, health effects studies, and oversight of American iron and steel requirements.

Before distributing funds among the states, EPA reserves 2% of the appropriated amounts for grants to Indian tribes and Alaska Native villages for water infrastructure projects.³⁸ The law also directs EPA to provide grants to the Virgin Islands, the Commonwealth of the Northern Mariana Islands, American Samoa, and Guam, using not more than 0.33% of the funds available for grants to the states.³⁹ Similar to the CWSRF, Congress has regularly increased this amount to 1.5% in appropriations acts.⁴⁰

³⁴ Elena Humphreys, Analyst in Environmental Policy, authored this section.

³⁵ SDWA §1452(a)(1); 42 U.S.C. §300j-12(a)(1).

³⁶ SDWA §1452(h); 42 U.S.C. §300j-12(h). EPA must report each needs assessment to Congress. In 2018, America’s Water Infrastructure Act of 2018 (P.L. 115-270) amended SDWA to explicitly require EPA to include an “assessment of costs to replace all lead service lines” of eligible public water systems subsequent needs surveys.

³⁷ SDWA §1452(a)(1)(D); 42 U.S.C. §300j-12(a)(1)(D).

³⁸ Under SDWA Section 1452(i) [42 U.S.C. §300j-12(i)], EPA may use 1.5% of the amounts appropriated annually to make grants to Indian tribes and Alaska Native villages. Since FY2010 (Department of the Interior, Environment, and Related Agencies Appropriations, 2010 [P.L. 111-88]), Congress has authorized EPA to reserve up to 2.0% of the appropriated funds for Indian tribes and Alaska Native villages. This authority was included in P.L. 112-74 and has continued through the terms and conditions of subsequent appropriations.

³⁹ For the amount set-aside for grants to territories, the act requires EPA to allot funds among the territories in accordance with factors that are used to determine the allotments of grants for the public water system supervision (PWSS) program. SDWA Section 1443(a)(4) identifies several factors to make PWSS grant allotments, including “on the basis of population, geographical area, number of public water systems, and other relevant factors.” EPA states that the territory allotments from the DWSRF set-aside are determined according to the following: population (5%), geographical area (2.5%), the number of community water systems and non-transient non-community water systems (14%), the number of transient non-community water systems (3.5%), and the “infrastructure needs” of the water systems in each territory as identified in the most current needs survey (75%).

⁴⁰ SDWA §1452(j) [42 U.S.C. §300j-12(j)]. For FY2010, Congress authorized EPA to reserve up to 1.5% of the appropriated funds for territories (P.L. 111-88). This authority has continued through subsequent appropriations acts.

As of March 2022, EPA has published six needs surveys, and the agency has used the survey data to determine state allotment percentages for DWSRF capitalization grants.⁴¹ The DWSRF allocation formula does not limit the amount that a state's allotment may decrease or increase based on new needs estimates. After the sixth needs survey,

- 14 states' allotments decreased, with allotment decreases ranging between 4% and 21%;
- 16 states' allotments increased, with allotment increases ranging between 1% and 74%;
- 23 states' allotments remained the same, the vast majority of which remained at the minimum 1% allotment level.⁴²

CWA Section 221 Sewer Overflow and Stormwater Reuse Municipal Grants Program

The Consolidated Appropriations Act, 2001 (P.L. 106-554) established a grant program in CWA Section 221 in 2000 (33 U.S.C. 1301) to address sewer overflow issues. America's Water Infrastructure Act of 2018 (AWIA; P.L. 115-270) amended the grant program by modifying the eligibility provisions to include stormwater infrastructure. Although originally authorized in 2000, Congress provided the first appropriation (\$28 million) for this program in FY2020 (P.L. 116-94). Under this program, EPA will provide grants to states, which then provide sub-awards to eligible entities. To date, EPA has not issued any grants for this program.

CWA Section 221 directs the EPA to develop an allocation formula to distribute grants to the states based on "the total needs of the State for municipal combined sewer overflow [CSO] controls, sanitary sewer overflow [SSO] controls, and stormwater identified in the most recent [needs estimate] ... and any other information the Administrator considers appropriate."⁴³

EPA published the allocation formula for this program in the *Federal Register* in February 2021.⁴⁴ EPA noted that the most recent needs estimate (2012 data) did not include complete estimates for every state. Thus, EPA decided to include additional factors based on their common availability across states and ability to serve as "surrogates for CSO, SSO, and stormwater infrastructure needs."⁴⁵ These additional factors include annual average precipitation, total population, and urban population. EPA weighted the factors as follows:

- 50% for the most recent CSO, SSO, and stormwater infrastructure needs estimates
- 16.7% for annual average precipitation
- 16.7% for total population
- 16.7% for urban population

In addition, each state will receive at least 0.5% of the total allocation.

⁴¹ For more information see the U.S. Environmental Protection Agency's (EPA's) website "Annual Allotment of Federal Funds for States, Tribes, and Territories" at <https://www.epa.gov/dwsrf/annual-allotment-federal-funds-states-tribes-and-territories>.

⁴² Prepared by CRS from EPA's website "Annual Allotment of Federal Funds for States, Tribes, and Territories" at <https://www.epa.gov/dwsrf/annual-allotment-federal-funds-states-tribes-and-territories>.

⁴³ 33 U.S.C. §1301.

⁴⁴ EPA, "State Formula Allocations for Sewer Overflow and Stormwater Reuse Grants," 86 *Federal Register* 11287, February 24, 2021.

⁴⁵ *Ibid.*

CWA Section 106 Water Pollution Control Grants⁴⁶

Title I of the 1972 CWA established the Section 106 Water Pollution Control Grant Program, which authorized EPA to provide grants to states and interstate agencies to assist in administering programs for the prevention, reduction, and elimination of pollution.⁴⁷ These grants support efforts to monitor and assess water quality, develop and review water quality standards, list impaired waters and develop total maximum daily loads, administer and enforce certain CWA permits, develop watershed and groundwater plans, and provide training and public information.⁴⁸

CWA Section 106(b) requires that “from the sums appropriated in any fiscal year, the Administrator shall make allotments to the several States and interstate agencies in accordance with regulations promulgated by him on the basis of the extent of the pollution problem in the respective States.” EPA’s regulations allot 2.6% of the funds appropriated for CWA Section 106 grants to interstate agencies.⁴⁹ The formula then establishes an allotment ratio for each state (and territory) based on six components EPA selected to reflect the extent of states’ water pollution problems. The six elements and their weights are listed below:⁵⁰

1. 35% for water quality impairment
2. 15% for population of urbanized area
3. 13% for point sources
4. 13% for nonpoint sources
5. 12% for surface water area
6. 12% for groundwater use.

In addition, the formula provides a funding floor for each state, with provisions for periodic adjustments for inflation and a maximum funding level. EPA regulations provide that the data used in the formula must be updated at least every five years. If appropriations for the program remain the same as the previous year, states receive their previous year’s allotment. If appropriations increase from the prior year, the formula calls for all states to receive a funding floor (i.e., the previous year’s allotment) and an adjustment for inflation calculated using the consumer price index. Any additional funding is distributed based on the extent of water quality problems in each state or territory (or portion of the state for the interstate allotments). The formula also establishes a funding ceiling limiting an allotment from increasing more than 150% from the previous year. In years of decreased funding, each allotment is reduced by an equal percentage.

⁴⁶ Laura Gatz, Analyst in Environmental Policy, authored this section.

⁴⁷ P.L. 92-500; 33 U.S.C. §1256. In 1987, Congress amended the CWA to include provisions that allow EPA to treat an Indian tribe in a manner similar to a state for the purpose of providing Section 106 funding (P.L. 100-4; 33 U.S.C. §1377).

⁴⁸ EPA, “Grants for State and Interstate Agencies under Section 106 of the Clean Water Act,” <https://www.epa.gov/water-pollution-control-section-106-grants/grants-state-and-interstate-agencies-under-section-106>. Section 106 funds cannot be used for construction, operation, or maintenance of wastewater treatment plants, or for activities financed by other federal grants.

⁴⁹ EPA’s allotment formula is codified at 40 CFR §35.162. Six interstate agencies receive CWA §106 funds, including the New England Interstate Water Pollution Control Commission (NEIWPCC), the Interstate Environmental Commission (IEC), the Delaware River Basin Commission (DRBC), the Interstate Commission on the Potomac River Basin (ICPRB), the Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC).

⁵⁰ 40 CFR §35.162. Each of the six components includes elements and sub-elements identifying metrics to be considered in deciding allocations. EPA regulations established component weights to account for the fact that not all of the formula components contribute equally to the extent of states’ pollution problems.

SDWA Small and Disadvantaged Communities Grant Program⁵¹

In 2016, the Water Infrastructure Improvements for the Nation (WIIN) Act (P.L. 114-322) amended SDWA to add a drinking water grant program to help assist disadvantaged or small communities afford projects needed to comply with SDWA regulations. Eligible projects include investments needed for SDWA compliance, household water quality testing, and assistance that benefits a community on a per-household basis. Eligible grant recipients include public water systems or tribal water systems that serve a disadvantaged community or a community of 10,000 or fewer individuals or a state on behalf of an underserved community.⁵² SDWA Section 1459A directs EPA to give priority to projects and activities that benefit underserved communities, and does not identify an allotment formula for awarding grant funds.

In April 2019, EPA announced the distribution of FY2018 and FY2019 funding for these grants among the states and territories, using a formula similar to the DWSRF allotment formula, with a 2% allotment for tribes.⁵³ In November 2020, EPA announced that the agency would provide \$20 million for public water systems serving tribal communities.⁵⁴ EPA stated that the agency allotted such funds in the same manner as the tribal set-aside from the DWSRF, namely providing 2% of the amount to each EPA regional office, and distributing the remainder of funds based on the results of the tribal drinking water infrastructure survey.⁵⁵ For FY2021 funding, EPA reports that the agency used “an algorithmic formula that includes factors for population below poverty, small water systems, and underserved communities,” with a 10% reservation of funds for projects serving Indian tribes and Alaska Native village, to determine the state allotments.⁵⁶

Concluding Observations

Prior to 1972, the federal government administered a relatively small funding program that supported the construction of municipal wastewater treatment plants. At the time, the federal government provided wastewater infrastructure funding on the basis of population.

The 1972 CWA authorized a comparatively large grant program for wastewater treatment plant construction. Annual appropriations provided funding to the states based on a CWA formula. In its early years, the formula was based on wastewater infrastructure needs estimates. In subsequent years, Congress added a factor to the formula to account for population, but needs estimates remained the dominant factor (see **Table 1**).

The CWA amendments in 1987 established the CWSRF program, which eventually replaced the CWA Title II grants program. The 1987 amendments included statutory allocation percentages for each state and U.S. territory in CWA Section 205. Based on the allocation formulas in the House and Senate bills

⁵¹ Elena Humphreys, Analyst in Environmental Policy, authored to this section.

⁵² For the purposes of this grant program, *underserved community* is defined to mean “a political subdivision of a State that, as determined by the Administrator, has an inadequate system for obtaining drinking water” (42 U.S.C. §300j-19(a)(1)).

⁵³ EPA, Final Allotments of FY2018 and FY2019 Appropriations for the Assistance to Small and Disadvantaged Communities Grants, Authorized under Section 2104 of the Water Infrastructure Improvements for the Nation Act, April 29, 2019, https://www.epa.gov/sites/production/files/2019-04/documents/wiin_2104_allotment_memo_april_2019.pdf.

⁵⁴ See EPA website “WIIN Act Section 2104: Assistance for Small and Disadvantaged Communities Tribal Grant Program,” at <https://www.epa.gov/tribaldrinkingwater/wiin-act-section-2104-assistance-small-and-disadvantaged-communities-tribal>.

⁵⁵ EPA, Assistance for Small and Disadvantaged Communities Tribal Drinking Water Grant Program Information, https://www.epa.gov/sites/default/files/2019-10/documents/final_guidance_for_tribal_section_2104_assistance_for_small_and_disadvantaged_communities_508.pdf.

⁵⁶ EPA, Final Allotments of FY2021 Appropriations for the Assistance to Small and Disadvantaged Communities Grants, Authorized under Section 2104 of the Water Infrastructure Improvements for the Nation Act, July, 27, 2021, <https://www.epa.gov/system/files/documents/2021-08/fy2021-initial-state-allotment-memo.pdf>.

that led to the CWA amendments, as well as previous formulas, Congress likely based the 1987 allocation on some combination of needs estimates and population, and perhaps other factors. However, the associated legislative history does not explicitly describe the factors or their weights that underlie the existing statutory allocation.

Since 1987, EPA, in coordination with the states, have produced seven needs surveys. The Census Bureau has updated population data through four subsequent U.S. decennial Censuses. None of this more recent information is reflected in the current allotment formula. Based on the difference between the current allotments and the revised needs surveys and population estimates, EPA concluded that “most states do not currently receive appropriated funds in proportion to their reported water quality needs or population, which demonstrates the inadequacy of the current allotment.”

Crafting an allotment formula has been one of the most debated issues during CWA reauthorizations. Given that the CWSRF is the primary assistance program for wastewater infrastructure, the dollars involved are relatively significant. Considerations of states’ potential allotment decreases or increases bear heavily on discussions of policy choices reflected in alternative formulations. If Congress deliberates on amendments to the CWSRF allotment to states, policymakers would have a range of options, including those provided in EPA’s 2016 report. These options consist of different combinations of needs estimates, population, and other factors.

In addition, Congress may look to the allocation formulas of other water infrastructure programs, such as the parallel DWSRF program. Under this program, EPA allots funding among the states based on the results of the most recent DWSRF needs survey, which SDWA requires EPA to perform every four years. Some may argue that factors other than needs estimates should be included for CWSRF allocation. EPA pointed out that its most recent wastewater infrastructure needs survey did not contain estimates for all eligible wastewater infrastructure project categories to every state. In particular, EPA stated that only 35 states submitted stormwater management data and only half of the states reported needs data for decentralized systems.⁵⁷

In addition, policymakers could include limitations similar to those provided in EPA’s options, namely constraints on the magnitude of decreases or increases a state would face under revised allocation formula. Congress included such limitations in prior formulas for wastewater infrastructure funding. Other funding programs have included such factors (e.g., CWA Section 106 program).

Since 1987, Congress has on several occasions considered legislation that would have modified the allotment formula. For example, in the 111th Congress, the House passed H.R. 1262, which would have created a tiered approach: for appropriations up to a certain level (\$1.35 billion), the current formula would apply, and for appropriations funds in excess of that amount, allotment would be done in accordance with the most recently reported funding needs. During the same Congress, the Senate Committee on Environment and Public Works reported S. 1005 (Cardin), which would have amended the allotment formula to follow the needs survey available at the time (i.e., 2004 data). In addition, the Senate bill would have guaranteed a minimum 0.75% share (rather than 0.5% as under current law), and generally insured that no state’s allotment would increase by more than 50% or decreased by more than 25% compared with its current allotment.

In the 116th Congress, S. 3211 (Rubio) would have directed EPA to update the allocation formula using the most recent (1) needs survey data (50%), (2) Census data (30%), and (3) water quality impairment data (20%). These factors and associated weights match Option 2 from EPA’s 2016 report. In addition,

⁵⁷ EPA, *Clean Watersheds Needs Survey 2012, Report to Congress*, 2016, http://www.epa.gov/sites/production/files/2015-12/documents/cwns_2012_report_to_congress-508-opt.pdf.

the bill would have limited a state's allotment decrease to 25% and increase to 200% compared to its current allotment (also in line with EPA's Option 2).⁵⁸

In the 117th Congress, S. 3031 (Rubio) would amend the allotment formula. For FY2022 through FY2026, EPA would first provide states with the same amount of funding they received in FY2021. Then, EPA would allocate any available appropriations in FY2022 through FY2026 exceeding FY2021 levels to the states based on the each state's population in proportion to the total U.S. population. In FY2021, the total CWSRF appropriation available was \$1.64 billion. IIJA provided supplemental annual appropriations for FY2022 through 2026 (e.g., \$2.0 billion in FY2022). This would be in addition to appropriations Congress may provide through the annual appropriations process. For FY2027 and subsequent fiscal years, the bill directs EPA to develop an allotment formula based on the most recent needs survey, with each state receiving a minimum 1.0% allocation (the current minimum is 0.5%).⁵⁹

⁵⁸ Representative Waltz introduced an identical bill in the 116th Congress (H.R. 5628).

⁵⁹ Representative Waltz introduced an identical bill in the 117th Congress (H.R. 5653).

Appendix. Additional Results from EPA's 2016 Study

As an illustration of how states' needs estimates and populations have changed over time, **Table A-1** compares the current CWSRF allotment percentages to allotment percentages based on (1) 2021 needs estimates and (2) 2010 Census data. The table also includes percentage changes for these two factors. As the table data indicate for example, some states percentage allotments would increase by more than double (e.g., Arizona, Colorado, Florida, and Nevada) based on 2012 needs data.

Table A-1. Selected Results from EPA's 2016 CWSRF Allotment Report

State/Territory	Current Allotment	Allotment Based on 2012 Needs Estimates and Percentage Changed from Current Allotment		Allotment Based on 2010 Census Data and Percent Change from Current Allotment	
Alabama	1.1%	1.0%	-11%	1.5%	31%
Alaska	0.6%	0.5%	-18%	0.5%	-18%
Arizona	0.7%	2.2%	223%	2.0%	191%
Arkansas	0.7%	0.5%	-25%	0.9%	37%
California	7.3%	8.6%	18%	11.6%	60%
Colorado	0.8%	1.6%	102%	1.6%	93%
Connecticut	1.2%	1.6%	27%	1.1%	-10%
Delaware	0.5%	0.5%	0%	0.5%	0%
District of Columbia	0.5%	0.9%	83%	0.5%	0%
Florida	3.4%	7.8%	129%	5.9%	71%
Georgia	1.7%	0.9%	-48%	3.0%	76%
Hawaii	0.8%	0.7%	-10%	0.5%	-36%
Idaho	0.5%	0.5%	0%	0.5%	0%
Illinois	4.6%	2.1%	-54%	4.0%	-13%
Indiana	2.4%	2.5%	2%	2.0%	-17%
Iowa	1.4%	0.8%	-42%	0.9%	-31%
Kansas	0.9%	1.2%	34%	0.9%	-3%
Kentucky	1.3%	2.0%	58%	1.4%	5%
Louisiana	1.1%	1.5%	33%	1.4%	27%
Maine	0.8%	0.6%	-19%	0.5%	-36%
Maryland	2.5%	4.0%	64%	1.8%	-27%
Massachusetts	3.4%	2.9%	-16%	2.0%	-41%
Michigan	4.4%	1.0%	-77%	3.1%	-30%
Minnesota	1.9%	0.8%	-58%	1.7%	-11%
Mississippi	0.9%	0.7%	-20%	0.9%	1%
Missouri	2.8%	3.4%	20%	1.9%	-34%
Montana	0.5%	0.5%	0%	0.5%	0%

Nebraska	0.5%	0.8%	61%	0.6%	10%
Nevada	0.5%	1.0%	101%	0.8%	69%
New Hampshire	1.0%	0.6%	-36%	0.5%	-51%
New Jersey	4.1%	6.4%	54%	2.7%	-34%
New Mexico	0.5%	0.5%	0%	0.6%	29%
New York	11.2%	10.4%	-7%	6.0%	-46%
North Carolina	1.8%	1.7%	-6%	3.0%	62%
North Dakota	0.5%	0.5%	0%	0.5%	0%
Ohio	5.7%	5.4%	-5%	3.6%	-37%
Oklahoma	0.8%	0.8%	-4%	1.2%	43%
Oregon	1.1%	1.3%	11%	1.2%	4%
Pennsylvania	4.0%	2.3%	-43%	4.0%	-2%
Puerto Rico	1.3%	1.0%	-26%	1.2%	-13%
Rhode Island	0.7%	0.6%	-8%	0.5%	-27%
South Carolina	1.0%	0.5%	-52%	1.4%	39%
South Dakota	0.5%	0.5%	0%	0.5%	0%
Tennessee	1.5%	0.6%	-62%	2.0%	34%
Texas	4.6%	3.9%	-17%	7.9%	69%
Utah	0.5%	0.5%	-7%	0.9%	61%
Vermont	0.5%	0.5%	0%	0.5%	0%
Virginia	2.1%	3.2%	56%	2.5%	20%
Washington	1.8%	1.7%	-6%	2.1%	19%
West Virginia	1.6%	1.2%	-25%	0.6%	-64%
Wisconsin	2.7%	2.1%	-25%	1.8%	-36%
Wyoming	0.5%	0.5%	0%	0.5%	0%
American Samoa	0.5%	0.2%	-58%	0.2%	-58%
Guam	0.4%	0.8%	110%	0.6%	61%
NMI	0.3%	0.2%	-11%	0.2%	-11%
Virgin Islands	0.3%	0.2%	-28%	0.4%	34%

Source: Prepared by CRS. Data from EPA, *Review of the Allotment of the Clean Water State Revolving Fund (CWSRF), Report to Congress, 2016*, Table B-1 and Table B-2, https://www.epa.gov/sites/production/files/2016-05/documents/review_of_the_allotment_of_the_cwsrf_report.pdf. Cle

Notes: NMI = Northern Mariana Islands. Although the table in CWA Section 205(c) provides a total of 0.25% for the U.S. territories, appropriations acts have increased this total annual allotment to 1.5% since FY2019. Therefore, EPA considers the "current allotment" to include a 1.5% total allotment to the territories.

Senator CARPER. Mr. Ramseur, thank you very, very much for that statement.

Mr. Sigmund, tell us where you are from, where do you live now?

Mr. SIGMUND. I live in Green Bay, Wisconsin.

Senator CARPER. I understand they have re-signed a quarterback.

Mr. SIGMUND. We did. It will be about 30 years of Hall of Fame quarterbacks leading Wisconsin.

Senator CARPER. That is pretty amazing.

Mr. SIGMUND. It is pretty amazing.

Senator CARPER. One of the members of my staff back in Delaware loves Aaron Rodgers. Worships the guy, watches him play all over the Country. So you are before us, and I presume like most folks in Green Bay, Wisconsin you share his passion.

Mr. SIGMUND. Yes.

Senator CARPER. In any event, aside from that, I would like to get into your bio, but you have great experience appropriate for today's hearing. We are anxious to hear from you. Thank you for coming.

**STATEMENT OF TOM SIGMUND, EXECUTIVE DIRECTOR OF
NEW WATER, NATIONAL ASSOCIATION OF CLEAN WATER
AGENCIES**

Mr. SIGMUND. Thank you. Chairman Carper, Ranking Member Capito, and members of the committee, I appreciate the opportunity to appear today. My name is Tom Sigmund. I am the Executive Director at NEW Water, the brand of the Green Bay Metropolitan Sewerage District in Green Bay, Wisconsin. We are a regional clean water utility providing wholesale conveyance and treatment services to 238,000 people across 15 municipalities in northeast Wisconsin with 101 employees and an annual budget of \$45 million.

I also serve as the Vice President of the National Association of Clean Water Agencies, for whom I appear before you today. For over 50 years, NACWA has represented public wastewater and stormwater agencies nationwide. Our network of 330 public agency members is on the front lines of public health and environmental protection.

The precursor to the current Clean Water State Revolving Fund was the Construction Grants Program established in the 1970's to help communities fund capital investments to comply with the Clean Water Act. After considerable debate in the 1980's, Congress phased out this grant program and created the Clean Water SRF to provide low-cost financing. It has since become the Federal Government's main tool to support local communities in water infrastructure investment.

Congress provides appropriations to EPA to capitalize revolving funds administered by the States and those States provide a 20 percent match. The States then issue loans to publicly owned treatment works. As the POTWs assume the loans, build the infrastructure and repay the loans, the funds revolve, grow, and support other communities and additional projects.

Over time, Congress has updated the Clean Water SRF such as by granting flexibility to the States to provide additional subsidiza-

tion. I cannot overstate how much of a lifeline the Clean Water SRF has been for clean water utilities across this Country, especially in Wisconsin. For many utilities, this is their only access to affordable financing.

NEW Water has utilized these programs since they were first introduced. Converted to 2021 dollars, NEW Water has invested \$1.2 billion in capital facilities over the past 45 years, utilizing \$1 billion of loans and grants. Almost 50 percent of NEW Water's 2022 annual budget is devoted to capital projects, underscoring how capital-intensive our work is.

This discussion underscores how the infusion of capitalization grants is critically important for clean water SRF sustainability. With funding to each State dependent on the allotment formula, it warrants continued attention.

According to a review by EPA, as we just heard, it is not known how the weighting and the factors were selected, and how they were used to establish the formula. It is likely they were centered on population, capital needs, a hold-harmless provision, as well as we have heard, a minimum allotment. Stakeholders can likely agree that the allocation formula is dated and warrants new consideration and clarity.

Since the 1980's, our Nation's population has shifted, and so have clean water infrastructure costs, assets and investment needs. Population increases can lead to new investment needs, but lower population growth does not necessarily lead to reduced demands. Policy makers have recognized the need to review the formula for well over a decade. Congress has directed EPA and GAO to perform audits of the formula and suggest policy options. Among the solutions proposed to reform the allocation a few themes emerge.

It is important to consider clean water needs, including the types of investments and how they should be weighted in the allocation. Population is an important consideration but should not be the sole factor. NACWA urges no States see a reduction in funds. Clean water investment demands remain high and new challenges continue to emerge.

The Clean Water Act envisioned a strong Federal-State partnership, and funding and financing are an important part of that partnership. The allocation process should also consider the historic per capita investment each State has made in funding wastewater projects, as these assets must eventually be replaced. EPA and the States must undertake a comprehensive needs survey. NACWA thanks this Congress for recognizing that an updated survey is needed by authorizing \$5 million in the Bipartisan Infrastructure Law. We were relieved to see Congress direct \$1.5 million for this survey last week in the omnibus.

Finally, we encourage an update to the formula that represents an updated needs survey and an approach that can adapt more steadily to future changes. These updates will take time, but a smooth, transparent and apolitical process is important.

NACWA and I appreciate the opportunity to share our views. I am proud of the work public clean water agencies have accomplished. Our Nation's complex water quality challenges and investment needs have grown. Additional Federal resources are critical to ensure utilities are prepared to meet the challenges of today and

tomorrow, starting with the Bipartisan Infrastructure Law, which we stand ready to implement.

When it is time, I will be happy to answer any questions.

[The prepared statement of Mr. Sigmund follows:]

Executive Director
 Thomas W. Sigmund, P.E.
Commissioners
 Kathryn Hasselblad, President
 James Blumreich, Secretary
 Thomas P. Meinz, Vice President
 Mark D. Tunpach, Vice President
 Lee D. Hoffmann, Vice President



**TESTIMONY OF
 Thomas W. Sigmund, P.E.**

**EXECUTIVE DIRECTOR
 NEW Water, Green Bay, Wisconsin**

**ON BEHALF OF THE
 National Association of Clean Water Agencies (NACWA)**

**SUBMITTED TO THE U.S. SENATE COMMITTEE ON ENVIRONMENT AND
 PUBLIC WORKS**

**HEARING ON
 “Oversight of the Clean Water State Revolving Loan Fund Formula”**

MARCH 16, 2022

Chairman Carper, Ranking Member Capito, and members of the Committee. I appreciate the opportunity to appear at today’s hearing.

My name is Tom Sigmund and I am the Executive Director at NEW Water, the brand of the Green Bay Metropolitan Sewerage District, in Green Bay, Wisconsin, where I have been since 2007. NEW Water is a regional clean water utility providing wholesale conveyance and treatment services to 238,000 people across 15 municipalities in Northeast Wisconsin. NEW Water has 101 employees and an annual budget of \$45 million. Our utility views the material sent to its facilities as a valuable resource to be recovered and reused and a commitment to continued improvement in the watershed.

I am also fortunate to serve as the Vice-President of the Board of Directors for the National Association of Clean Water Agencies (NACWA) – for whom I appear before you today.

For over 50 years, NACWA has represented public wastewater and stormwater agencies nationwide that are on the front lines of public health and environmental protection. Our unique and growing network of 330 public agency members works to ensure public utilities have the tools necessary to provide affordable and sustainable clean water services for all. As part of that mission, NACWA has long advocated for the federal government to recommit to a full and reliable partnership with local communities to invest in and build critical water infrastructure.

Background

The precursor to what would become the Clean Water State Revolving Fund (CWSRF) was established in the early 1970’s as a Construction Grants Program to help communities fund the capital investments necessary to comply with the Clean Water Act (CWA) that was passed in



Green Bay Metropolitan Sewerage District
 2231 North Quincy Street | Green Bay, WI 54302 | Phone (920) 432-4893 | Fax (920) 432-4302 |
www.newwater.us

1972. The goals of the CWA were simple--water should be clean enough for fishing, swimming and other recreational uses.

Through this program, Congress provided annual appropriations which were distributed among the states under an allocation formula determined by the CWA. The states then dispersed the funds to cities and local utilities. The Construction Grants Program provided communities with a 75 percent federal grant that was later reduced to a 55 percent grant. After considerable debate in the 1980's, Congress phased out this grant program and created the CWSRF in 1987 to provide low-cost financing for local water quality infrastructure projects. The CWSRF has since been the federal government's main program tool to support local communities in making billions of dollars in water infrastructure investment.

Through the CWSRF program, Congress provides annual appropriations to the U.S. Environmental Protection Agency (EPA) to capitalize revolving funds administered by the states. States are required to match federal capitalization grants by 20 percent and use these funds to issue loans to publicly owned treatment works (POTWs) for wastewater projects. Over time, as POTWs assume loans, build critical infrastructure, and repay the loans, the repayments reenter the fund and help the program grow and support other communities and additional projects.

Building on a total federal investment of \$48.1 billion to date, the state CWSRFs have financed a total of \$153 billion of investment in communities through 2021. States have provided over 44,500 low-interest loans to protect public health, improve valuable aquatic resources, and meet environmental standards benefiting hundreds of millions of people.

Each state is responsible for the operation of their CWSRF program. Under the CWSRF, states may provide various types of assistance, including loans, refinancing, purchasing, or guaranteeing local debt and purchasing bond insurance. States may also set specific loan terms, including interest rates from zero percent to market rate, and repayment periods of up to 30 years. States have the flexibility to target financial resources to their specific community tailored to its environmental needs. States may customize loan terms to meet the needs of small and disadvantaged communities, or to provide incentives for certain types of projects. Disadvantaged communities have benefited from the additional subsidization to help them afford needed capital improvement projects.

The program proved to be such a profound benefit to utilities and communities that in 1996, Congress created a parallel Drinking Water State Revolving Fund. It is a testament to the value the CWSRF brings to wastewater treatment that Congress saw fit to replicate the program for drinking water utilities.

Over the course of time, Congress has updated the way the CWSRF works – such as adding new priorities and granting flexibility to states to provide additional subsidization such as grants, principal forgiveness, and negative interest rate loans beginning in 2009.

Additional subsidization was enhanced in the recently enacted *Bipartisan Infrastructure Law*. This will help the CWSRFs reach communities that cannot support loan repayment, historically underserved communities, and those with environmental justice concerns that often include low-

income people and communities of color. Disadvantaged communities experience disproportionately high risk of exposure to air, land, and water pollution.

Wisconsin and the CWSRF

I cannot overstate how much of a lifeline the CWSRF has been, and still is, for clean water utilities across this country, and especially in Wisconsin. The CWSRF helps clean water utilities comply with federal and state water quality regulations and replace aging infrastructure. Simply stated, it helps us conduct our mission of protecting public health and the environment.

Through the State of Wisconsin's Clean Water Fund Program, clean water utilities have benefited from over \$5.3 billion worth of financial assistance since State Fiscal Year 1991¹. That assistance has funded 1,203 projects which received about \$5 billion in loans and over \$300 million in principal forgiveness. An additional \$100 million in principal forgiveness was provided to Wisconsin clean water utilities through the CWSRF via the 2009 *American Recovery and Reinvestment Act* (ARRA). The subsidies the CWSRF has provided to disadvantaged communities in Wisconsin in the form of principal forgiveness represent about seven percent of the total financial assistance provided to clean water utilities in Wisconsin.

Wisconsin clean water utilities were early implementers of the now 50-year-old CWA. Projects were implemented beginning in the 1970's through the Construction Grants Program and continued as the program transitioned to low-interest loans in the late 1980's. For many utilities in Wisconsin, the CWSRF is their only access to affordable financing to build and maintain the capital necessary to protect the public health of their communities. Wisconsin was the first state to meet fishable/swimmable goals established in the original CWA. Its Compliance Maintenance Program, that all utilities must participate in annually, has resulted in clean water utilities having very few discharge permit violations.

NEW Water has utilized these programs beginning with the construction of significant water reclamation facilities in the mid-1970's. Converted to 2021 dollars, NEW Water has invested about \$1.2 billion in capital facilities over the last 45 years, utilizing \$1 billion of loans and grants during that period. It plans to invest an additional \$310 – \$470 million into capital facilities over the next 20 years. Almost 50 percent of NEW Water's \$45 million 2022 annual budget is devoted to capital projects. This large percentage of its annual budget devoted to capital shows how capital-intensive protecting public health and the environment is for water sector utilities across the country.

Formula Allocations

The previous discussion helps underscore that the infusion of capitalization grants is critically important for the sustainability of the CWSRFs. As water quality challenges have increased and infrastructure naturally ages, capital investment needs have grown. With funding to each state dependent upon the federal CWSRF allotment formula, the formula warrants continued attention by Congress and EPA. Considerable attention has been paid to the allotment formula over the past 15 years, with only limited updates made.

¹ <https://dnr.wisconsin.gov/aid/documents/EIF/financialAssistanceSummary.html>

According to a review of the CWSRF undertaken by EPA in 2016, it is not known how the weighting and factors that were used to establish the original CWSRF formula for the allotment were selected. It is likely that the considerations were centered on the Census population, capital needs reported by the states in the Clean Water Needs Survey, a hold-harmless provision to limit the decrease in a state's allotment, and a minimum allotment. The formula has been adjusted in 2000 and 2010 by EPA, based upon a change in the eligibility of the Pacific Trust Territories to receive funding, and later to increase funding allotments to U.S. territories.

Over the decades, EPA and states have updated the Clean Water Needs Surveys several times – gathering new state data and adding in new costs, such as stormwater management, nonpoint source pollution controls, and construction of new decentralized wastewater treatment systems. The Surveys are important to begin to capture the range of capital investments utility leaders must consider and the scale of clean water investment costs. They do not directly account for situations on the ground that can impact investment needs, such as population flows or affordability.

Since the late 1980's, our nation's population has shifted and so have clean water infrastructure costs, assets, and investment needs. Some states have grown while others saw relative losses or stagnation. Population increases can lead to new investment needs – like more treatment capacity or more pipes – but population decreases do not necessarily lead to reduced infrastructure demands. In fact, areas with older infrastructure in harsh winter weather conditions – such as Wisconsin, the Midwest at large, and the Northeast – face great challenges in trying to tackle problems like maintaining aging infrastructure and addressing water quality that was designed for growing industrial cities or towns.

Even without the pressures of population growth, clean water utilities must add and maintain capital assets in order to respond to ever increasing state and federal regulatory requirements. Many of these regulatory mandates require construction of very expensive capital facilities.

Attempts to Reform the Allocation

Utility leaders and other interested stakeholders can likely all agree that the CWSRF allocation formula is out of date, and at minimum, warrants new consideration and clarity, especially at a time of increased federal investment in clean water.

Congress and EPA have recognized the need to review the allotment formula for well over a decade. Congress has directed EPA and the Government Accountability Office to perform audits of the formula and suggest policy options to update it.

Among the solutions proposed by all these entities, a few themes emerge. It is important to consider clean water needs, including reviewing what types of investments should be factored in and how they should be weighted. Population should likely play a role in determining the allocation a state receives, but it should not be the sole factor. And there is also concern to hold states harmless, meaning that no state would experience a reduction in overall SRF funding or face unpredictable shifts that could threaten the sustainability of the fund.

Some additional thoughts to consider in any revisions to the allocation are:

- The historic per capita investment that each state has made in funding wastewater projects and the timeline of these investments. These assets must eventually be replaced due to age and condition.
- The number of violations per capita or per discharge permit, with lower numbers positively impacting the allocation.
- The current dollar value of replacing existing assets that initially received either subsidies, grants, or CWSRF loans.

Recommendations

NACWA proposes first and foremost that no state see a reduction in funds it has received in recent fiscal years. The reality is that clean water investment demands remain high and new challenges continue to emerge. The federal CWA envisioned a strong federal-state partnership on clean water, and funding and financing tools are an important part.

Next, it is critical that EPA and the states undertake a comprehensive Clean Watershed Needs Survey – one that accounts for the scope of the need around the country and one that can have meaningful impact on policy and funding considerations. NACWA thanks this Congress for recognizing that an updated survey is needed by authorizing \$5 million for this purpose and directing EPA to undertake such an update in the *Bipartisan Infrastructure Law*.

We were relieved to see Congress direct EPA to spend \$1.5 million on the updated survey in the FY2022 Omnibus last week. An updated survey is a critical step to inform any formula update and we urge Congress to appropriate the full authorization to help EPA and provide resources to the states to encourage full participation.

Finally, we encourage Congress to provide direction to EPA to update the formula based on an updated Needs Survey, with an approach that can adapt more steadily to future changes. This will ensure that the allotment formula builds in factors that are at the core of the goals of the CWSRF – helping communities meet the challenges of protecting public health and the environment. These updates will take time, but a smooth, transparent and apolitical process is important to help ensure continued predictability and reliability in the CWSRF and build upon the transformative successes that this critical program has had over the years.

Conclusion

NACWA and I appreciate the opportunity to share our views on the funding allocation formula for the CWSRF and its impact on the nation's wastewater infrastructure.

I am proud of the work the wastewater sector has accomplished to date to provide safe, reliable clean water services to the communities we serve. Advances in municipal wastewater treatment have been an indisputable success of the CWA since 1972. Since then, our nation's understanding of the complexity of water quality challenges has grown and new issues have emerged. Ensuring the goals of the CWA is not as straightforward as we may have thought 50

years ago but, by working together, local utilities, states, and the federal government can and will make continued progress. Additional resources and assistance from the federal government are critical to ensure that the greatest number of water and wastewater utilities are prepared to meet the challenges of today and tomorrow – starting with the *Bipartisan Infrastructure Law*, which we stand ready to implement.

We appreciate the Committee's focus on keeping this critical funding stream strong and the formula updated in a manner that meets present-day challenges. We appreciate the chance to help ensure that the funding provided through the SRFs is used optimally and according to the needs of our communities.

I am happy to answer any questions that you might have.

Senator CARPER. Mr. Sigmund, thank you so much.

In reading your bio, Ms. Dreyfuss-Wells, I noted that you graduated summa cum laude from Ohio State University. I also graduated from Ohio State University, not summa cum laude.

[Laughter.]

Senator CARPER. I have used this joke many times at commencements, but I won't tell you whose joke it really is. But I have addressed many graduating classes and said, some of you are graduating summa cum laude today, some of you are graduating magna cum laude, some of you are graduating cum laude, and some of you are graduating today by the graced of the Good Laude.

[Laughter.]

Senator CARPER. I once used that at a graduating ceremony at Delaware State University, which is the No. 3 HBCU in the Country. It turned out the guy who was the keynote address followed me, and it was joke.

[Laughter.]

Senator CARPER. I won't soon forget that, and frankly, neither will he.

Ms. Dreyfuss-Wells, Chief Executive Officer of the Northeast Ohio Regional Sewer District in Cleveland. Where do you actually live?

Ms. DREYFUSS-WELLS. I live in Shaker Heights.

Senator CARPER. Kyle, we look forward to hearing from you today. Please proceed. Thank you for joining us.

STATEMENT OF KYLE DREYFUSS-WELLS, CHIEF EXECUTIVE OFFICER, NORTHEAST OHIO REGIONAL SEWER DISTRICT

Ms. DREYFUSS-WELLS. Good morning, Chairman Carper, Ranking Member Capito, and members of the Senate Environment and Public Works Committee. Thank you for inviting us to testify this morning about the importance of adequately funding clean water infrastructure across the Country with the Clean Water State Revolving Fund.

As the Senator said, I am Kyle Dreyfuss-Wells, CEO of the Northeast Ohio Regional Sewer District in Cleveland. I am also a NACWA board member and I am pleased to join my colleague, Tom Sigmund, here today.

The sewer district is among the largest wastewater treatment and stormwater management utilities in Ohio. We serve the city of Cleveland and 61 communities across 355 square miles of the Lake Erie watershed. Our 750 employees manage three wastewater treatment plants, processing 90 billion gallons of flow annually, 475 miles of the regional stormwater system, and 350 miles of large, inter-community sewers.

Our district serves a broad customer base, including households, our region's industrial base, and two of the largest hospital systems in the Nation. We do this with a \$170 million annual operating budget and an approximately \$270 million annual capital program. So this is what it takes to protect public health and water quality of northeast Ohio. And it is funded by the 1 million people that we serve.

So while we are here today to talk about the SRF, I have found in conversations about clean water that it centers on three factors:

rates, affordability, and ensuring access of all customers to clean, reliable sewer service. The SRF in Ohio is essential to us doing that as we rely on it to finance our critical work and to control the rates that our customers pay.

The modern day environmental movement was born in Cleveland, starting with a spark that ignited the Cuyahoga River for the thirteenth time in 1969. That fire unleashed a relentless effort to care for the water of our region and gave way to the Clean Water Act, and more locally for us, the creation of the sewer district in 1972. For the first 20 years of our work, we received nearly \$600 million in Federal construction grants. With this, we invested in reducing the amount of combined sewage to Lake Erie and making critical improvements to the region's wastewater collection system and treatment facilities.

By the early 1990's, Federal construction grants were significantly reduced, but the need for continued clean water capital investments remained. So we looked to our ratepayers. For 30 years, the ratepayers have paid for nearly all of our clean water work through sustained rate increases. Every year, the people of northeast Ohio, including in Cleveland, where 30 percent live below the Federal poverty line, have paid for clean water.

Today, our customers pay an average of \$70 per month. While none of us who live in northeast Ohio like paying these high rates, we do pay these high rates and have done so for many years, because they are necessary to do this work.

So our customers have continued to have confidence in us, and we have continued to have the respect for them to focus on controlling their rates through reliance on the SRF and cost containment across our organization and through our project management. Today I am proud to say that the water quality improvement in our community underscores Cleveland's rebirth. But more work and more investment is needed.

Recently, we accepted SRF funding for our shoreline storage tunnel, a \$200 million effort under Project Clean Lake, our multi-billion dollar federally mandated program to further reduce combined sewage to Lake Erie. With SRF funding, we financed the project using very favorable borrowing terms, 40 years at 1.57 percent interest. Based on our most recent bond refinancing and our credit rating, we estimate 3 percent if we were to bond finance this for 40 years.

So over the length of this loan, this equates to roughly \$50 million in savings. Using the SRF, we minimize costs and pass the savings to our customers. We have financed over 100 projects with the SRF, and in a region with aging infrastructure, we plan to invest \$1.2 billion over the next 5 years. SRF funding will help us to continue to reduce the financial impact on our customers.

So we acknowledge that communities across the Country face rising infrastructure expenses. But we cannot forget older communities like Cleveland with aging infrastructure, increased regulatory requirements, poverty and declining population. The issues in growing and older communities may be different, but the need for SRF funding is the same. Increased SRF funding can meet the needs of all communities across the Country, old and new, large and small.

So in closing, I hold northeast Ohio to you as a model for doing clean water infrastructure right. We recognized our problems and have worked hard for the last 50 years to address them. The ability of utilities like mine to access SRF financing makes it possible for us to control costs and to protect clean water for all of our customers.

Thank you for the opportunity to be with you today. I am happy to answer any questions.

[The prepared statement of Ms. Dreyfuss-Wells follows:]



Kyle Dreyfuss-Wells
Chief Executive Officer, Northeast Ohio Regional Sewer District
Board Member, National Association of Clean Water Agencies (NACWA)

Before the U.S. Senate Committee on Environment and Public Works (EPW)
Oversight of the Clean Water State Revolving Loan Fund Formula
March 16, 2022

Good morning Chairman Carper, Ranking Member Capito, and members of the Senate Environment and Public Works Committee. Thank you for inviting us to testify this morning about the importance of adequately funding clean water infrastructure across the country with the Clean Water State Revolving Fund.

I am Kyle Dreyfuss-Wells, CEO of the Northeast Ohio Regional Sewer District in Cleveland. I am also a NACWA Board Member and am pleased to join my colleague Tom Sigmund here today.

The Sewer District is among the largest wastewater treatment and stormwater management utilities in Ohio. We serve the City of Cleveland and 61 communities across 355 square miles of the Lake Erie watershed. Our 750 employees manage 3 wastewater treatment plants, processing 90 billion gallons of flow annually, 475 miles of regional stormwater system, and 350 miles of large intercommunity sewers. Our District serves a broad customer base, including households, our region's industrial base, and two of the largest hospital systems in the nation. We do this with a \$170 million annual operating budget and an approximately \$270 million annual capital program.

This is what it takes to protect the public health and water quality of Northeast Ohio and is funded by the 1 million people we serve. While we are here today to talk about the SRF, I have found that conversations in the clean water industry center on three factors - rates, affordability and ensuring access of all customers to clean, reliable sewer service. The SRF in Ohio is essential to us doing that as we rely on it to finance our critical work and to control the rates our customers pay.

The modern-day environmental movement was born in Cleveland, starting with a spark that ignited the Cuyahoga River for the 13th time in 1969. That fire unleashed a relentless



effort to care for the water of our region and gave way to the passing of the Clean Water Act and the creation of the Sewer District in 1972.

For the first 20 years of our work, we received nearly \$600 million in federal construction grants. With this we invested in reducing the amount of combined sewage to Lake Erie and making critical improvements to the region's wastewater collection system and treatment facilities.

By the early 90s, federal construction grants were significantly reduced but the need for continued clean water capital investments remained. So, we looked to our rate payers. For 30 years, our rate payers have paid for nearly all our clean water work through sustained rate increases. Every year the people of Northeast Ohio, including in the City of Cleveland where 30% of residents live below the poverty level, have paid for clean water. Today our customers pay an average of \$70 per month. While none of us who live in Northeast Ohio like paying these high rates, we do pay these rates and have done so for many years because they are necessary to do this work.

Our customers have continued to have confidence in us and we have continued to have the respect for them to focus on controlling their rates through reliance on the SRF and cost containment across our organization and through our project management.

Today, I am proud to say that the water quality improvements in our community underscore Cleveland's rebirth. More work and more investment, however, is needed.

Recently, we accepted SRF funding for our Shoreline Storage Tunnel, a \$200 million effort under Project Clean Lake, our multibillion dollar federally mandated program to further reduce combined sewage to Lake Erie. With SRF funding, we financed the project using very favorable borrowing terms – 40 years at 1.57%. Based on our most recent bond refinancing and our credit rating, we estimate 3% if we were to bond finance this for 40 years. Over the length of this loan, this equates to roughly \$50 million in savings.

Using the SRF, we minimize costs and pass the savings to our customers. We have financed over 100 projects with the SRF. In a region with aging infrastructure, we plan to invest about \$1.2 billion over the next five years. SRF funding will help us to continue to reduce the financial impact on our customers.



We acknowledge that communities across the country face rising infrastructure expenses. We cannot forget older communities, like Cleveland, with aging infrastructure, increased regulatory requirements, poverty, and declining populations.

The issues in growing and older communities may be different, but the need for SRF funding is the same. Increased SRF funding can meet the needs of all communities across the country – old and new, large and small.

In closing, I hold Northeast Ohio as a model for doing clean water infrastructure right. We recognized our problems and worked hard over the last 50 years to address them. The ability of utilities to access SRF financing makes it possible for us to control costs and protect clean water for all our customers.

Thank you for the opportunity to testify before you today, and I would be happy to answer any questions the Committee may have.

Senator CARPER. Ms. Dreyfuss-Wells, thank you for your statement. Great to meet you, and thank you for coming today, and for the work you do.

Ms. DREYFUSS-WELLS. Thank you.

Senator CARPER. Batting cleanup on our panel of four is Laura Watson, Director of the Washington State Department of Ecology. Prior to serving in this position, Director Watson spent over 20 years in the State Attorney General's office, working to protect the environment.

Ms. Watson, we thank you for joining us. Go ahead and proceed with your testimony. Thank you.

**STATEMENT OF LAURA WATSON, DIRECTOR, WASHINGTON
STATE DEPARTMENT OF ECOLOGY**

Ms. WATSON. Thank you, Chairman Carper, Ranking Member Capito, and members of the committee.

My name is Laura Watson, as the Senator said. I am the Director of the Washington State Department of Ecology. I also chair the Water Committee for the Environmental Council of the States, also known as ECOS. It is an honor to be here today to be testifying on behalf of ECOS.

ECOS was formed in 1993 to bring States and territories together across State boundaries and across party lines, to strengthen the work of our environmental agencies, to protect the environment and to protect public health. The Clean Water State Revolving Fund is a critical financial assistance tool for environmental agencies to protect water quality in our communities through investments in clean water infrastructure.

The Federal investments in the Infrastructure Investment and Jobs Act marked an unprecedented opportunity to repair and expand essential infrastructure that will strengthen security and well-being for our communities. This is one of the most exciting times in history to be able to be leading this work and to be collaborating with our State and Federal partners to tackle some of our Nation's biggest challenges.

With renewed investment, now is also the right time, we believe, to consider the Clean Water State Revolving Fund formula and assess if it is still working as it was intended when it was written 35 years ago. ECOS supports a robust, a balanced, a thorough and a thoughtful consideration of the allotment formula along with the various criteria that could be used to modernize it.

We are aware that changes to the formula could likely result in some States seeing increases and other States seeing decreases in their funding levels. Due to this, ECOS is not in a position to recommend specific changes to the formula at this time. But we do support a thorough review to understand if the formula is actually meeting the needs of each State and our residents.

We further request that Congress work with EPA and State organizations like ECOS in this process. As Congress undertakes the process to review the formula, there are several aspects that ECOS would recommend you consider. First, the definition of need should account for the actual needs and the unique needs of States. Infrastructure needs have changed significantly since the formula was first implemented. Many have already mentioned that in some

areas, we have population shifts that have resulted in more States experiencing growth and a greater need for infrastructure. On the flip side, we have States which have had population decreases, which means there are fewer resources, fewer ratepayers to tackle aging infrastructure.

In 2016, EPA reevaluated what constitutes need in communities to assess needs beyond traditional wastewater infrastructure. We support that. For example, in my State, stormwater treatments to reduce pollution from existing developments is critical. It is critical to protecting the Puget Sound estuary.

Like Washington, of course, each State has its own unique clean water priorities that need to be addressed. We support EPA's efforts to ensure that these are captured through the needs survey.

Second, the allotment formula should be based on recent and robust data. The last Clean Watershed Needs Survey from EPA was published in 2016. The data was from 2012. Now we have a new survey underway. We hope that the data we are collecting now will be able to be analyzed, summarized, and published by EPA in 2023 so we get recent data that will be of assistance in looking at the formula.

Third, we recommend reevaluating other criteria after completion of the survey. For example, and again you have heard this a lot, a formula that is based just on population may not reflect all of the needs within a State and if you have high quality needs data available, it may not be necessary.

Fourth, ECOS recommends reviewing how environmental justice is considered in the formula. The Clean Water State Revolving Fund has long focused on providing guidance in this area to support disadvantaged communities. The Infrastructure Act strengthens this commitment by assigning certain percentages to these disadvantaged communities as grants and forgivable loans. Ensuring that the allotment formula incorporates these commitments could address longstanding environmental justice issues.

There are a few other recommendations contained in my written testimony. In the interest of time, I will wrap it up there. Again, I want to thank you on behalf of Washington State and my peers, and all of the other States, territories and Washington, DC. We very much appreciate your work, your ongoing investments and your work to take a fresh look at the allotment formula. Thank you.

[The prepared statement of Ms. Watson follows:]

**Testimony of Laura Watson
Director, Washington State Department of Ecology
Chair, Environmental Council of the States' Water Committee
U.S. Senate Environment and Public Works Committee Hearing
Addressing the Clean Water State Revolving Fund Formula
March 16, 2022**

Thank you Chairman Carper, Ranking Member Capito, and members of the Committee.

My name is Laura Watson. I am the Director of the Washington State Department of Ecology (Ecology). I am also Chair of the Environmental Council of the States' (ECOS) Water Committee. ECOS is the national nonprofit, nonpartisan association of state, territorial, and District of Columbia environmental agency leaders. ECOS members are the state appointed officials who have a holistic perspective on environmental infrastructure challenges, including water, air, land, and materials, and the importance of sustainable, equitable, and resilient funding and management strategies. It is an honor to be here today to testify on behalf of ECOS on the Clean Water State Revolving Fund formula.

The Washington State Department of Ecology that I lead was created over 50 years ago to protect and preserve Washington's air, land, and water, predating the federal Clean Water Act and the Clean Water State Revolving Fund. In 1993, the Environmental Council of States was formed to bring together states and territories, across state boundaries and party lines, to strengthen the work of environmental agencies in protecting the environment and public health.

Together, we have advanced environmental work across the nation, sharing best practices and putting the needs of people and the environment first. The Clean Water State Revolving Fund is a critical financial assistance tool for environmental agencies to protect water quality and public health in our communities through investments in clean water infrastructure.

In Washington, Ecology is responsible for stewarding the Clean Water State Revolving Fund. In this role, we have seen firsthand the benefits of the program in both rural and urban communities across the state. Since 1988, one year after the Fund was established, Ecology has distributed funding for more than 1,000 projects for wastewater and stormwater infrastructure, on-site sewage treatment system repair and replacement, and implementation of best management practices that reduce pollution and restore watershed function. This funding has allowed our State to assist communities of all sizes to update aging clean water infrastructure and address new standards for water quality and public health protection.

Ecology's program maintains the following priority goals:

- Goal 1: Identify and fund the highest priority water quality focused projects statewide.
- Goal 2: Provide funding through a fair, objective, and transparent process.
- Goal 3: Provide the best possible funding packages for small, financially challenged communities.
- Goal 4: Provide technical assistance to funding applicants and recipients.
- Goal 5: Provide sound financial management of the funding programs and projects.

Since passage of the law through June 30, 2021, Washington State's Clean Water State Revolving Fund program had received a total \$830 million in U.S. Environmental Protection Agency (EPA) capitalization grants. These funds are strategically used to address critical infrastructure challenges and maintenance, especially in areas with resource challenges and the highest needs. Since 1988, Washington State has funded clean water projects totaling more than \$2.2 billion, which includes state matching funds and revolving principal and interest repayment from loans.

Washington State also runs an integrated water quality funding program that links the Clean Water State Revolving Fund with other state and federal water quality focused grant programs. This combined program simplifies the application process for water quality focused projects allowing communities to apply for and receive funding from multiple sources to fund their needs.

Nationwide, the U.S. Environmental Protection Agency reports¹ that the Clean Water State Revolving Fund has provided \$153 billion to communities through 2021. This amount includes \$30,000 assistance agreements to small communities, which often created considerable cost savings, and supported innovative projects with public health and environmental benefits.

As an example, the Greater Lawrence Sanitary District in Massachusetts optimized anaerobic digestion by processing food waste for energy. This project supported the goal of creating a zero net energy wastewater facility.

A statewide project in Montana has minimized the need for plant upgrades through targeted education of wastewater treatment operators and some additional site-specific assistance.

The City of West Monroe, Louisiana has completed a project to upgrade an existing wastewater treatment plant to meet the water needs of a nearby manufacturer. The city worked closely with the manufacturer to identify, test, and implement this innovative solution to the company's industrial input needs.

¹ United States Environmental Protection Agency, "Learn about the Clean Water State Revolving Fund (CWSRF)," March 2022, <https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf>.

Finally, a series of sponsored projects in Iowa is used an innovative funding mechanism to allow utility ratepayers to get two water restoration projects for the cost of one.

These are only a few of the many success stories from states around the nation, all of whom are putting Clean Water State Revolving Fund dollars to work and leveraging them to expand benefits.

The federal investments made through the Infrastructure Investments and Jobs Act present an unprecedented opportunity to further this work and to repair and expand essential infrastructure that will strengthen security and wellbeing for all our communities. This is one of the most exciting times in history to lead this work and to collaborate with state and federal partners to tackle some of our nation's biggest challenges. With renewed investments, ECOS would like to make some recommendations if the Committee reconsiders the Clean Water State Revolving Fund formula to assess if it is still working as intended, 35 years after being written.

ECOS Supports a Robust Process to Examine the Funding Formula

ECOS supports balanced, robust, and thoughtful consideration of the allotment formula as well as the various criteria that would be used to modernize it.

The Water Quality Act of 1987 established the Clean Water State Revolving Fund allotment formula. Currently, EPA awards capitalization grant funding to each state based on the established allotment formula. Each state applies for their annual capitalization grant from EPA. As an example, Washington State's portion of the federal funding appropriated to the Fund is about 1.8 percent.

We are aware that any changes to the formula would likely result in some states seeing increases and others seeing decreases. Due to this, ECOS is not in a position to recommend specific changes to the formula. However, it is important that the formula is equitable in meeting the needs of all states, territories, and the District of Columbia, and we support a thorough review of the formula to identify ways to improve it. We further request that Congress work with EPA and state organizations, like ECOS, in this process.

Defining "Need" in the Funding Formula

EPA defines clean water needs based on a set of established criteria. These criteria are used for data collection through the Clean Watersheds Needs Survey to meet the water quality goals of the Clean Water Act. The first Needs Survey was in 1972.

The Clean Watersheds Needs Survey is used to provide information to states and EPA, but is not currently used to inform allotment. For reference, EPA also leads a Drinking Water Infrastructure Needs Survey. The data from this survey are used in the Drinking Water State Revolving Fund allotment process. Congress should explore the efficacy and outcomes of incorporating Needs Survey data in the Drinking Water allotment formula and consider this as a potential model for the Clean Water State Revolving Fund formula.

The 2022 Clean Watersheds Needs Survey data collection launched earlier this month and will continue through 2022. Each state carries out this data collection effort and documents needs in an EPA database. The Needs Survey will allow environmental agencies to collect information on projects that address existing or projected (within next 20 years) water quality issues. The 2022 survey will include needs data for:

- Publicly owned treatment works (including information on combined sewer overflows and sanitary sewer overflows);
- municipal stormwater programs;
- decentralized wastewater treatment;
- nonpoint source best management practice implementation;
- desalination;
- water efficiency; and
- renewable energy projects.

Historically, the Clean Watersheds Needs Survey data collection is an onerous process. This is because the data collection and verification process requires review of capital improvement plan documents from communities. This is time intensive, which can prolong the process. Additionally, it often results in underestimates of needs because not all clean water projects have the appropriate documentation required by EPA.

Although we are not through the 2022 Survey, we hope it will prove to be more efficient and provide clear, credible, consistent, and comparable data that can build the basis for an updated allotment formula. If Congress considers incorporating Survey data into the Clean Water State Revolving funding formula, it should also consider how states can get timely and accurate data.

Recommendations

As Congress undertakes this process to review the allotment formula, there are several aspects to consider.

The Definition of Need Should Account for the Unique Needs of States

Infrastructure needs have changed significantly since the allotment formula was implemented in 1987. For example, population shifts during this time have resulted in many states experiencing growth that creates additional stress on wastewater systems. In other states, population decrease has meant fewer resources to tackle aging infrastructure.

In 2016, EPA took steps to reevaluate what constitutes “need” in communities across the country. EPA updated the categories to include clean water needs beyond traditional wastewater infrastructure. For example, in Washington State, stormwater treatment to reduce pollution from existing development is critical to protecting the Puget Sound estuary and salmon recovery. Investing in stormwater treatments and pollution reduction furthers our goals to preserve endangered salmon, boost tourism and recreation, protect water-based economies, and ultimately, preserve our way of life in

the Pacific Northwest. While these are unique priorities for Washington, each state and territory has its own clean water priorities that need to be addressed in order for us to serve our residents.

This year, EPA broadened the needs categories included in the 2022 Clean Watersheds Needs Survey, including nonpoint source pollution projects. We support EPA's continued efforts to capture the clean water needs of each state and to streamline the data collection process.

The Allotment Formula Should be Based on Recent and Robust Data

The last Clean Watersheds Needs Survey was published in 2016 from data collected in 2012. After a 10-year hiatus, a new Survey is now underway with states collecting and documenting needs data over this next year. We hope that the 2022 Needs Survey will be analyzed, summarized and published by EPA in 2023. Once published, these data may provide useful criteria for updating of the allotment formula.

Re-evaluate Other Criteria after Review of the 2022 Clean Watersheds Needs Survey

Data used in EPA's 2016 and 2022 Clean Watersheds Need Surveys, which includes Census data, should be reassessed, as should their relevancy in an updated allotment formula. For example, basing a new allotment formula on population alone may be unnecessary if high-quality Clean Watersheds Needs Survey data are available. This is because states that have experienced significant population increases are likely to have associated increases in infrastructure needs. We anticipate the Needs Survey will identify other important factors, such as infrastructure resiliency needs in response to the impacts of climate change.

Another key consideration will be to review how the allotment formula can advance fair outcomes for communities and areas with the greatest needs. The current guidance considers a financially disadvantaged community's "ability to pay" which provides one mechanism to close infrastructure gaps across communities. As state leaders, we have seen how small and low-income communities benefit from the "ability to pay" provision, and how this directly helps communities meet their clean water infrastructure needs. EPA developed a set-aside of the annual appropriation to be distributed to a small number of states to assist them in closing the gap between need and ability to pay.

Congress Should Consider how Environmental Justice is Incorporated in the Formula

EPA's 2016 report to Congress on the Clean Water State Revolving Fund does not mention environmental justice. However, the Clean Water and Drinking Water State Revolving Funds have long focused on providing guidance on how to manage the Funds to support disadvantaged communities.² Ensuring funds are accessible to disadvantaged areas has been part of the Drinking Water State Revolving Fund for over

² United States Environmental Protection Agency, "Funding Disadvantaged Communities with the Clean Water State Revolving Fund," June, 2016, https://www.epa.gov/sites/default/files/2016-11/documents/funding_disadvantaged_communities_with_the_clean_water_state_revolving_fund.pdf.

20 years, and the Clean Water State Revolving Fund includes affordability criteria for economically distressed areas.

The Infrastructure Investments and Jobs Act strengthens this commitment by mandating specific percentages³ of State Revolving Fund dollars be distributed as grants and forgivable loans to disadvantaged communities, including communities with environmental justice concerns. Ensuring the State Revolving Fund allotment formula incorporates these outcomes could address longstanding environmental justice issues such as unfunded or underfunded infrastructure needs in areas with environmental justice concerns, lead in drinking water systems, and gaps in water quality monitoring. This could benefit rural and urban communities across the nation.

ECOS has convened an environmental justice workgroup to support our state association, and individual states, with advancing actions to ensure nondiscrimination under Title VI of the Civil Rights Act and coordination with federal environmental justice activities.

The allotment formula should be developed and implemented on a timeline that ensures long-term, sustainable success for all State Revolving Funds

If Congress decides to update the formula, it should also consider implementing the new allotment formula in phases. A phased approach would avoid potential drastic changes in state Clean Water State Revolving Fund monetary levels that could disrupt financial assistance plans and expectations for community clean water infrastructure. Allowing for a transition phase for implementation of a new allotment formula over a number of years would allow states to plan for change.

Create Accountability for Timely Data

Various states have given feedback that the needs survey process is cumbersome and takes too long, so that by the time the information is available it is already outdated. For this information to be more useful, EPA should strive to find ways to streamline, strengthen, and expedite the process.

Additional Clean Water State Revolving Fund Recommendations

ECOS supports robust funding of the Clean Water State Revolving Fund and encourages increased flexibility of funding and reduction of federally imposed administrative burdens of utilizing State Revolving Fund dollars.

ECOS appreciates the federal investments in our communities through the Infrastructure Investment and Jobs Act. We also appreciate Administrator Regan, Assistant Administrator Fox, and EPA for releasing the associated State Revolving

³ Radhika Fox, "Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law," United States Environmental Protection Agency Memorandum, March, 2022, https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf

Funds Implementation Memo we need to put these dollars to work. States also appreciate the change through the Infrastructure Investments and Jobs Act to allow 2 percent of annual Clean Water State Revolving Fund capitalization grant funds to go to technical assistance to small, disadvantaged, and underserved communities as is done with the Drinking Water State Revolving Fund. This will provide much-needed support to communities that lack the professional expertise to build wastewater infrastructure.

Additionally, state programs should be regularly and meaningfully engaged as discussions related to the allotment formula evolve.

Conclusion

Thank you, on behalf of Washington State and my peers in the rest of the states, territories, and DC, for considering the views of our agencies as you review the Clean Water State Revolving Fund allotment formula. We stand ready to be a resource to you as you continue this work. Thank you for your ongoing investments and commitment to communities across the country.

Senator CARPER. Ms. Watson, thank you. I would just say, our colleagues who are arriving, all of us are on a lot of committees. As it turns out, there are a bunch of hearings going on this morning. I am going to be in and out, and the Ranking Member, Senator Capito, may be in and out. But we will keep things moving. We have been joined by Senators from as far away as Arizona, from as close by as Maryland and from as far away as Alaska, and fairly far away, from Arkansas. Happy to have you all here.

I want to say to our staffs, both on the majority side and minority side, you pulled together and all-star lineup here. We are grateful to all of you.

We are going to move to some questions now. I am going to kick it off. Mr. Ramseur, I will start with you. Your written testimony outlines the history and the evolution of the Clean Water State Revolving Loan Fund. While we know that the formula has not been updated, I believe since 1987, Congress has made a number of tweaks through the appropriations process to adjust the formula to account for additional issues such as tribal needs, and maybe needs in Alaska for some of the folks that Senator Sullivan represents.

I am going to ask, Mr. Ramseur, to elaborate for us on some of the changes that Congress has made through the appropriations process, and give us an idea why you think Congress made those changes, what led Congress to make them.

Mr. RAMSEUR. First off, the territories initially had .25 percent in aggregate allocation under the Clean Water Act. In recent appropriations acts, I think for the past 10 years or so, that aggregate amount has been increased to 1.5 percent. That is a change that Congress has made through appropriations acts.

As well, there is a new provision, relatively new provision in the Clean Water Act devoting up to 2 percent for Indian tribes. EPA has in recent years gone to that 2 percent. Those are the changes that have been made in that respect.

Senator CARPER. Second half of the question is, what do you think led Congress to make those changes?

Mr. RAMSEUR. I would have to dig a little deeper and come back to you on that one.

Senator CARPER. Anyone else have a thought on that second half of my question? No?

Senator CAPITO. That is a stumper.

[Laughter.]

Senator CARPER. Let the record show this is the first time we have ever stumped any panel on any of my questions.

[Laughter.]

Senator CARPER. All right. We will come back to that later on.

My second question, this would be for Mr. Sigmund. The Infrastructure Investment and Jobs Act provides unprecedented levels of supplemental funding for the Clean Water State Revolving Fund. This kind of historic investment, coupled with the ability to distribute a significant amount of funding in the form of grants, or in the form of loan forgiveness, will provide all States and territories with more resources for water infrastructure than they have ever had before, I believe.

As States begin to implement this historic level of funding, Congress needs to start thinking about how to rebalance the formula

going forward. An important first step in balancing the formula is to look at gaps in the funding distribution. Here is my question: Are there gaps in the current State Revolving Fund program that need to be addressed to help EPA provide a more equitable distribution of those funds to the States, to tribes and to territories?

Mr. SIGMUND. My experience, my detailed experience is through the State of Wisconsin and their clean water fund. I have said in the past, the clean water fund in the State of Wisconsin is one of the best administered funds that I have ever come across. When I was a consultant, I saw many across the State. It is encouraging utilities to stay in compliance and to get ahead of things. So that is a well-run program.

In general, I think what we are seeing with this current bipartisan infrastructure law is more money coming into States for clean water funds. It is bringing it closer to a level as to what we need.

So the biggest gap has been, and hopefully it can be rectified in the future, is just the needs greatly exceed the funding that comes from the Federal Government. We need to continue that. Have I answered your question?

Senator CARPER. I think so. A followup. You mentioned that the revolving fund in Wisconsin maybe the best around. Why is it? How has it been able to achieve that kind of recognition? I like to say, find what works and do more of that. Maybe we can learn something from the Badgers.

[Laughter.]

Mr. SIGMUND. The process that the State of Wisconsin uses, it requires utilities, through the compliance and maintenance program, we have to submit a scorecard for our utility every year to the State of Wisconsin, looking back at our compliance, looking at our rated capacity of our facilities, and seeing how we stand, as well as environmental compliance. So the State requires us to be proactive. And when we do that, we are seeing things well in advance of when they need to be implemented, capital projects. We then can in a more thoughtful manner plan those capital projects, work with our customers to start to increase the rates if we need to to fund them. Then also, we work with the State of Wisconsin, the Clean Water Fund, to get our project into their priority system so they can rank it and determine what level of priority it is. And if a utility needs some type of supplemental funding outside of just a straight line, an additional subsidy. So I think the State of Wisconsin has done a great job of working to keep us on task so that utilities do not fall into disrepair and then things become an emergency.

Senator CARPER. Thank you for that.

Senator Capito.

Senator CAPITO. Thank you, Mr. Chairman. I am going to yield to the Senator from Arkansas, Senator Boozman, for his questions.

Senator BOOZMAN. Thank you, Senator Capito, very much. I want to thank you and Chairman Carper for having this so, so very important hearing. In fact, I think one of the hallmarks of this committee is that the hearings that we have greatly impact the problems that people have on such a number of important issues.

The Clean Water Revolving Fund formula is so very important to the State of Arkansas. Through 2020, Arkansas has leveraged

more than \$325 million in Federal funds to support over 1,300 projects with the Clean Water State Revolving Fund program. Of those projects, 74 percent were in communities with a population of less than 10,000 people.

Access to safe and reliable water is critical for all Americans. This initiative makes the process easier and more affordable for States to meet their unmet water infrastructure needs.

Mr. Sigmund, in your testimony you commented that population should be considered in an updated allocation formula, but it should not be the only factor. Can you speak more about why you don't believe that a population-only approach is the right strategy to allocating SRF dollars?

Mr. SIGMUND. Yes, certainly population, greater population leads to greater flows coming into treatment facilities, conveyance facilities. So it should be a factor. But there is such a significant investment in assets. These assets, at wastewater, whether it be large conveyance facilities or treatment facilities, tend to be long-lived assets that are quite expensive. I think that consideration needs to be what are going to do when those assets need to be replaced. Because that can be, the Federal Government helped us put them in, and we need help replacing them or doing significant repair. We do take care of the assets. Operation and maintenance is fully within our customers, our annual budgets.

I think also a factor that needs to be considered, and it is different for every State, is what are the environmental regulations, the environmental conditions, what levels of treatment do utilities need to do to meet the water quality standards of the body. And they are different across the Country.

Senator BOOZMAN. That is so important. The EPA has ratcheted up, rightfully so in some cases, maybe not so in other cases. And again, that is just a tremendous expense that falls in an effort to make our waters as clean as possible.

Community wastewater systems, both publicly and privately owned, are essential to the physical and economic health and well-being of rural Arkansas. However, rural communities oftentimes run into additional problems, such as lacking technical expertise and the funds to apply for multiple State or Federal assistance programs. As a rural State with low-medium household income compared to States with higher populations, we have less people but a greater need.

In your opinion, how can we further help communities with smaller ratepayer base get a fair chance at securing State and Federal assistance, Mr. Sigmund?

Mr. SIGMUND. The Clean Water Fund loan process is a challenging process. When we do a loan, our staff is typically preparing a three-plus inch binder of supporting material that is needed by the State of Wisconsin in order to secure the loan. Our staff has done this over the years. We are fairly good at it, if you can ever get really good at it. It is a significant burden for a utility that has a smaller staff to be able to do that. We understand the State needs to get the information it needs to be able to secure its loans. But we certainly look forward to trying to simplify the process because it is burdensome.

One of the things that has been talked about in our clean water sector is the possibility of a utility such as mine that has some expertise in doing that be able to assist smaller communities. That has not happened yet, but it is a possibility. I think with this bipartisan infrastructure law you have allocated some money to both EPA and the State to provide training and assistance. One of the things that EPA, a call that I was on, acknowledged that they need more people to apply for these loans than currently apply for the loans. So we are going to have to figure out how we can overcome that hurdle of the challenge of putting those together.

Senator BOOZMAN. Thank you. My time has run out. Thank you all for being here. I wish I had the time to just extract all of the knowledge out of all of your heads. We do appreciate your taking the time for this very important hearing. Thank you very much.

Senator CARPER. Senator Boozman, thank you so much. Thanks for joining us today. Good to see you.

Senator Cardin, from our neighboring State of Maryland.

Senator CARDIN. Thank you, Mr. Chairman. Let me thank all of our witnesses.

The Clean Water State Revolving Fund formula that was developed in 1987, no one knows exactly why that formula was created the way it was. We know it is based somewhat on population and need, but we don't know exactly how it was conceived. So it is important that we update it.

But as a practical matter, the only way you are going to be able to bring in a new formula is when we put more money into the program. Because we don't want to adversely impact any jurisdiction and just the pragmatic issues. So this is a time to really review the Clean Water State Revolving Fund.

Let me point out a fact that if you look at our efforts, for example, to clean up the Chesapeake Bay, and clean water, the largest single growth source of pollutants going into the Chesapeake Bay is storm runoff. Locally, we have invested a great deal of money and resources into stormwater management. Blue Plains, the largest wastewater treatment facility of its kind in the world, has invested a considerable amount of money to deal with stormwater runoff. I was at Back River in Baltimore not too long ago with Senator Van Hollen. They are investing in stormwater runoff.

I mention that because, and we have used creative solutions. Ben Grumbles, who is the Secretary of our Department of Environment, and also as I understand it is the president of the Environmental Council of the States, has found creative ways to deal with stormwater runoff. We have used WIFIA funds, we have used whatever we can in order to deal with these issues.

But my question is, as we are looking at incorporating need into the Clean Water State Revolving Fund, how do stormwater infrastructure needs come into plan as we develop that formula? Because it has not been successful in accessing the Clean Water State Revolving Funds. I have been told that there has actually been an increased allocation to stormwater runoff, but still less than 4 percent of the allocations under the State Revolving Fund for clean water.

So my question, and whoever wants to volunteer, I will be glad to let someone go first, how do we ensure that the needs for

stormwater management and infrastructure are incorporated under the needs part of the State Revolving Fund as we look at a new formula?

Ms. WATSON. Well, Senator, everybody is looking at me, so I think I will go ahead and take first crack at that. It is actually an excellent question from Washington State. We are kind of stormwater central as well, so it is a huge focus area for us in terms of pollution reduction.

One of the issues with the stormwater funding, you can compare this to wastewater utility funding, wastewater utility there is a set rate base and people understand it. There aren't a lot of stormwater utilities compared to, there are stormwater utilities in States, but not across all regions of the States. That itself is an impediment to folks applying for the stormwater funds, because there is no real rate base in some regions of the Country to be able to match the funds that are received.

Now, EPA, through the needs survey is having States look at those stormwater needs. So that is something that States, working with local governments, should be able to incorporate into the needs survey.

But I will use some examples actually from your great State that I am aware of through Ben Grumbles in terms of other ways in which you can increase the States feeling comfortable, local governments feeling comfortable applying for those funds. One is through education and outreach, EPA doing education and outreach to local governments to help governments understand how flexible this funding is.

Another area for education and outreach is just to appreciate the co-benefits of stormwater funding, so when you are dealing with stormwater projects you are not just dealing with the reduction of stormwater, but you are also dealing with toxics reduction, for example, in climate resiliency.

Senator CARDIN. I am going to focus on the Clean Water State Revolving Fund for one moment. Because a few years ago, we had a hearing before this committee on a similar topic. The Mayor of Baltimore was one of our witnesses, and she made a strong, impassioned plea in regard to additional tools available to deal with the infrastructure needs for clean water.

Baltimore is under a consent order as many other cities are. The rate structure, the pressure on the ratepayers is enormous in Baltimore. The increased rates are extremely difficult and not affordable for a lot of people, for their basic utility needs.

So looking at this revolving fund is absolutely essential if we are going to be able to make progress on this infrastructure need. I will put this for the record, if you could come up with ways in which that is reflected in a needs part of a formula, I would very much appreciate that help.

Ms. DREYFUSS-WELLS. Senator, if I may, to answer, to build on the answer to your question, we operate both a wastewater utility and a stormwater utility at the Northeast Ohio Regional Sewer District. In response to your question, I think what we are seeing is really the professionalization of stormwater, sort of bringing it up into the same level of structure that we have on the wastewater side, recognizing that stormwater, as you said, is as big a pollutant

as the bacteria that we focus on, the e-coli that we focus on on the wastewater side.

So I think one of the things that would help very much is to sort of demystify green infrastructure, demystify onsite stormwater management, so folks understand that these are structural solutions to manage stormwater as close to its source as possible on each development site with bioretention, et cetera. And having folks understand that there is a way to build these things correctly that is engineered and is maintained and is therefore fundable.

Senator CARDIN. Thank you. Thank you, Mr. Chairman.

Senator CARPER. Senator Cardin, thank you. Senator Cardin chairs a major subcommittee on this committee that deals with infrastructure. He has been a great leader on these issues. He brings a lot of knowledge. He used to be a State legislator, including speaker. He was Mr. Speaker in the Maryland General Assembly.

OK, Senator Capito, you are on.

Senator CAPITO. I am going to yield to Senator Sullivan for questions.

Senator SULLIVAN. Thank you, Senator Capito. Thank you, Mr. Chairman.

I want to kind of followup where Senator Boozman started. I am concerned about formulas that are too heavily dependent on population. Of course, that has to be an element, and Mr. Sigmund, you had mentioned that. I want to dig down a little bit more on the issue of need, then environmental justice, because they are often interrelated.

In my State, we have over 30 communities, which includes thousands of households, that have no infrastructure, no wastewater infrastructure at all. Zero. The people in Alaska refer to the system of honey buckets, which sounds sweet. It is not sweet at all, it is collecting your own human waste and then bringing it out in a bucket and dumping it in a lagoon. America.

By the way, Mr. Chairman, these are some of the most patriotic communities in America, because they are primarily Alaska Native communities, and Alaska Natives serve at higher rates in the military than any other ethnic group in the Country. So we have thousands of U.S. citizens, patriotic Americans, who live in third-world conditions. That is just not right.

When the Flint, Michigan crisis happened, I remember every time I heard upgrading infrastructure, great. I agree with that. But my point was, well, how about we get to places that have no infrastructure first. So to me, that issue should trump everything. If you are an American and you have to use a honey bucket, sorry, that is just wrong. Every Senator should care about that, not just me.

But can you, maybe Mr. Sigmund, and others, talk about this issue of need as a priority? It does, at least in my State, raise issues of racial equity because it is primarily Alaska Native and indigenous communities that have nothing.

Mr. SIGMUND. I will start and let my colleagues fill in. When I was a consulting engineer, I many years ago worked in New Mexico and El Paso, Texas. In some of those areas, the Native American areas, water was brought to people in a 55-gallon drum and put on a stand. You are right, wastewater conveyance was not something that was done automatically.

Communities need to look at those, what their community needs. Sometimes when things are——

Senator SULLIVAN. I don't want to be rude here, I only have so much time. Shouldn't we in the formula prioritize need?

Mr. SIGMUND. I believe you should.

Senator SULLIVAN. OK. Does everybody else agree with that? Yes? Ms. Watson, do you agree with that as well?

Ms. WATSON. Here on behalf of ECOS, we are not prepared to make specific recommendations at this time, because States could be winners or losers depending on——

Senator SULLIVAN. Well, of course there could be winners and losers. Right now, my constituents on this issue are losers.

Ms. WATSON. Yes.

Senator SULLIVAN. Again, I don't even think this is a close call. You talked about racial equity, racial justice, Native people in Alaska use honey buckets in a lot of communities. That is just completely unacceptable. As American citizens, we should all care about that.

So do you think we should have some kind of element in the formula that prioritizes that? It is not just Alaska, by the way. I think West Virginia has some of these issues.

Ms. WATSON. Yes, for sure, the needs are important for environmental justice communities, as well as rural communities and other disadvantaged and smaller communities.

Senator SULLIVAN. Let me ask, it is a different question, but it is also an important one. It is the issue, again, we talk a lot about population, of course we have to have some element in the formula about that. But what often gets missed in my view is size of the State. I don't have to remind the Chairman, I think Alaska is 264 times bigger than Delaware. But who is counting?

Senator CARPER. We say in Delaware that we punch above our weight.

Senator SULLIVAN. They do. I mean, the Chairman certainly——

Senator CARPER. We have 400 chickens for every person in our State.

[Laughter.]

Senator SULLIVAN. That is a whole other issue.

But it does obviously create bigger challenges on infrastructure to deploy it when the size of the State is so big as well as population. What do the panelists think about the issue of, again, in the formula, not just population but need, we already talked about that, but the size of the State? Ohio is a pretty big State. What is your sense on that?

Ms. DREYFUSS-WELLS. Thank you, Senator. I think the needs survey, if done correctly, and if States are given and localities are given the resources that they need to put that needs survey together. Because even the needs survey requires resources, engineering, hydraulic modeling, et cetera, to truly understand the need.

Size will be incorporated into that. Because you will have to factor in how many miles do I need to lay this sewer pipe, how am I actually going to sewer an area that may be frozen one part of the year and not frozen another part of the year. So these are the

questions that localities can answer if they are given the resources to be able to do that.

So size will be incorporated into a well done needs survey.

Senator SULLIVAN. OK. Anyone else on the size issue?

Mr. SIGMUND. I think Kyle has talked about the needs survey. The solution for your State is going to be different than for my State of Wisconsin. So that is where the needs survey, if it looks at the needs of the community, the needs of the State, will come up with what is required. And it will be different for each State.

Senator SULLIVAN. Great. Thank you. Thank you, Mr. Chairman. I am concerned that these three potential formulas by the EPA that have been developed are too heavily reliant on population and can make matters worse, at least for States like mine that have these kinds of needs and size and challenges.

Senator CARPER. The Senator from Alaska probably recalls when we were debating our water bill on the floor. An amendment was offered to basically change one of the formulas that were under consideration to, it was like more strictly population. My recollection it was defeated something like 86 to 14. So you are not the only person who feels that population by itself is not sufficient.

Senator SULLIVAN. Thank you.

Senator CARPER. OK. Senator Kelly has joined us. We have two Navy captains here, and even a Marine colonel and a general.

Senator KELLY. Thank you, Mr. Chairman. First, I want to say thank you to you and Ranking Member Capito for holding this hearing today. I really appreciate it.

As you know, this is an important topic to me and to Arizona. I understand and appreciate the importance of carefully considering any potential changes to the Clean Water State Revolving Loan Fund formula.

Population, size, and change is an important thing in Arizona. We are a growing population. But to Senator Sullivan's point, we also have similar issues. The Navajo Nation, hundreds of thousands of Native people who often live without infrastructure, without water and sewer, often without electricity, either.

But I think it is also important for us to acknowledge that the current formula needs to be reformed. This is the main source of funding for wastewater, stormwater, and groundwater infrastructure improvements. Estimates from EPA and the GAO indicate that fast-growing States with significant infrastructure needs like Arizona could see a two or threefold increase in the amount of funding they receive under this program if the formula were reformed.

That is why I have worked with Senator Rubio to raise this issue of proposed solutions. Fixing the formula isn't a partisan issue. It is a question of making sure that we are effectively using scarce Federal dollars to meet the critical infrastructure needs of communities across the Country.

So Mr. Ramseur, thank you for being here. Thank you to all of you for being here today. I want to start with a few basic questions for you.

First, the Clean Water SRF was created in 1987. Has the formula determining State allocations ever been updated since then?

Mr. RAMSEUR. Not in the Clean Water Act Statute. There have been some small tweaks to it through appropriations acts, and EPA has made some administrative changes. But by and large, it has been the same allotment since 1987.

Senator KELLY. Do we know how Congress determined this allocation formula?

Mr. RAMSEUR. We don't know precisely. Based on the House and Senate bills that led to the evolution of the 1987 amendments, both those bills included factors of population and needs and other things. So it is likely that the formula included those, but we don't know explicitly what was included.

Senator KELLY. Congress did not take enough notes from back then.

All right. Is there anything in the congressional Record from the time which indicates that the formula was designed to consider the water infrastructure needs of the State?

Mr. RAMSEUR. Not explicitly. Just based on the House and Senate bills which did include needs as a factor, one might assume that that was included, but we don't know for sure.

Senator KELLY. Thank you. You note in your testimony that EPA has conducted 16 clean watershed needs surveys since 1972 to determine water infrastructure needs of a State. Does the allocation formula used to distribute the Clean Water SRF take into account information from these needs surveys?

Mr. RAMSEUR. No.

Senator KELLY. Does EPA have any legal authority to make adjustments to the Clean Water SRF based on the infrastructure investment need?

Mr. RAMSEUR. Not to my knowledge, no. They have to follow the Clean Water Act provision that directs them to the table, which has the percentages for each State from 1987.

Senator KELLY. Thank you. As you know, the EPA also manages a companion program to the Clean Water SRF called the Drinking Water SRF. Have the State allocations for the Drinking Water SRF been updated since it was enacted?

Mr. RAMSEUR. Yes, several times.

Senator KELLY. Several times. And are those allocations updated based on need?

Mr. RAMSEUR. Yes, that is the requirement in the Drinking Water State Revolving Fund program, the allocations are based on the most recent needs survey which generally come out every 4 years.

Senator KELLY. So the Drinking Water SRF is based on need and has been updated, but the Clean Water SRF has not?

Mr. RAMSEUR. Correct.

Senator KELLY. All right. Mr. Chairman, I have additional questions that I would like to get to, but let me just say before my time is up, I understand it is important to have deliberation and debate about funding formula changes. But not acting to change the Clean Water SRF formula is kind of ridiculous. This formula was created 35 years ago. We don't know how the formula was created. And it is not updated to account for evolving needs or changing populations in States.

We have good examples of other formula funding programs within this committee's jurisdiction that are regularly updated based on the evolving needs of the State. We just pointed out one. But this committee has never acted to try to address this problem.

Meanwhile, States like Arizona, which have significant and growing water challenges, are forced to do more with fewer Federal resources. I hope that this hearing is just the first step in a longer process to update the outdated formula.

I appreciate that you and Senator Capito have taken the next step, asking the Government Accountability Office to provide legislative recommendations for potential reforms. As we see those recommendations, I will look forward to working together with you both to continue making progress on this issue.

Senator CARPER. Great song by Chicago comes to mind, Only the Beginning. Only the Beginning.

All right, Senator Capito.

Senator CAPITO. Thank you. Thank you very much. Thank you to all the witnesses.

My first several questions I was going to ask are a bit repetitive of the testimony we have heard. That is that a population only based formula is not satisfactory to meet the demands and to meet different regions of the Country, urban, rural, declining populations, growing populations. So I am not going to re-ask that question. I see shaking heads. So thank you for that, thank you for confirming that.

As I am thinking about this, I think that the devil is in the details, because there has to be a good definition of what is need. Is a need, you don't have enough capacity for a growing population, or is a need such as what Senator Sullivan brought, or what somebody in a more rural State might have, with aging infrastructure? I think Ms. Dreyfuss-Wells, you addressed that in some of your testimony.

So I guess maybe I will start with Mr. Ramseur to say, what is the definition of need? Is it aging, is it leaking, is it not enough capacity? Wouldn't we be well served, maybe you can't weigh in on this, but I think we would be well served to make sure definitionally, if we are going to look at this, what does need mean. So is there a definition for need in this statute, or even in the Safe Drinking one?

Mr. RAMSEUR. I would have to circle back on the Safe Drinking Water Act precise definition. But under the Clean Water Act's, the needs surveys that have been published every 4 years or so from EPA have multiple categories of needs, including stormwater, the big ones, wastewater treatment. But to some degree, those categories have changed over the years. So if Congress were to look at updating the formula based on needs, this would be a central question, what is needs, and how wide should the scope of needs be.

Senator CAPITO. Mr. Sigmund, do you have a comment on that? Am I barking up the right tree here?

Mr. SIGMUND. Need needs to be very broad. All the things you talked about, you said is it this or this or this, yes, it is all of that.

Senator CAPITO. All of the above.

Mr. SIGMUND. In addition to aging infrastructure that needs to be refreshed periodically in order to meet the needs, you have, again, growth, the ability to handle growth, whether it is population or other growth, as well as to be able to deal with pending or current regulatory changes.

So need is very, very broad. We need to widen our consideration.

Senator CAPITO. Ms. Dreyfuss-Wells, do you have a comment on that?

Ms. DREYFUSS-WELLS. Yes, thank you, Senator. I think one way to think about need is that our job as wastewater and stormwater managers is to support the land use of our communities. So that gives a very broad, as Tom said, definition of need. So we have aging infrastructure that has to be replaced. And I would look to local governments, to mayors, to hear about this need as well. I will just throw out the example of the city of Maple Heights in northeast Ohio, common trench sewers 80 years old, failing, cracking, basement flooding, these types of issues. So that is a need that is unique to northeast Ohio, but goes to this issue of aging.

So we as wastewater managers, we support land use. So that spreads that need across many categories.

Senator CAPITO. Ms. Watson?

Ms. WATSON. Thank you, Senator. I agree with everything that has been said. I will just add a little bit of a different flavor. There is, on the one hand, the definition of need, then there is also the ability to demonstrate need. I think that is another issue we have run into with smaller communities, with rural communities, with disadvantaged communities, it is quite onerous to put together a capital improvement plan to actually demonstrate need. So technical assistance resources to those communities would go a long way.

Senator CAPITO. That is the repeating them we have heard as well. We know our cities and communities and counties under the COVID relief were given dollars, and one of the qualifying areas was water and wastewater infrastructure. I know from my mayors, they can't figure out how to do this. Then you encourage them to go regionally, and that is not a concept that a lot of mayors really, or county administrators, really embrace in our State. Regionally is hard for us. But I think it is probably the more efficient way to go.

So let's just say we begin to look at a different way to calculate the formula. If in fact we were to do so it would change from year to year. I am getting to the issue of certainty and predictability. How important is that to you, Ms. Dreyfuss-Wells?

Ms. DREYFUSS-WELLS. It is very important. I think the point of delivering infrastructure efficiently for our customers is having a long term capital plan. So at the sewer district, we look at these things over a very long timeframe. And it involves advance facilities planning, and then it involves detailed design as you come into actually bidding a project.

So that certainty around funding is very important, so that you can put together a capital plan that takes advantage of efficiencies from putting together a well run plan.

Senator CAPITO. Thank you. My last comment will be, if I can, Mr. Chairman, I see this as, this could almost become a cycle. If

you are in a declining population area, and you aren't able to secure funds to modernize your water and wastewater systems, in my view that further declines your ability to attract jobs, to attract residents, to attract people into those areas. So if you don't have the ability because it is only based on population, and certainly this would be, environmental justice communities would fall into this category, you are really going to perpetuate that cycle.

On the other hand, if you go to growing population areas and way increase the amount of money for those, then you are going to keep creating more population and you are going to be getting more and more dollars to be able to modernize. So I think we have to be really careful here, particularly as we are looking at declining populations and rural populations, that we are not feeding into a phenomenon that a lot of these populations are trying to fight right now.

So I thank you all for your testimony. Thank you for listening.

Senator CARPER. Thank you, Senator Capito. We have a couple of colleagues who are trying to join us before we close out. One is Senator Duckworth, and the other is Senator Padilla. Senator Duckworth is trying to join us by WebEx. Are you out there?

Senator DUCKWORTH. Yes.

Senator CARPER. Senator Padilla, are you out there?

Senator PADILLA. I sure am. Can you hear me, Mr. Chairman?

Senator CARPER. I certainly can. Please proceed, Alex.

Senator PADILLA. All right, thank you so much.

I know others have touched on the State Revolving Fund, the Clean Water State Revolving Fund, but I wanted to ask a more specific question and surprise, surprise, being a little California-centric here. California's wastewater systems serve a population of 40 million living in over 13 million homes across California, and treat 4 billion gallons of sewage per day. The Clean Water State Revolving Fund is a critical funding mechanism for managing the more than 100,000 miles of sewer collection and 900 wastewater treatment plants throughout my home State.

A lot has changed in California since 1987 when the allotment formula was first implemented. California's population has grown from about 29 million in 1990 to 40 million today. Not only that, but Californians are also on the front lines of the climate crisis, facing both a historic mega-drought that is threatening our water supplies as well as rising sea levels that threaten several sewer systems in particular regions of the State.

In its 2016 report, the EPA found that most States do not currently receive appropriated funds in proportion to the reported water quality needs or population, which demonstrates the inadequacy of the current allotment. That is a direct quote from the EPA's 2016 report. The study found that revising the allocation formula would mean California's clean water needs could be even more fairly addressed. In fact, the study estimated that such a revision would result in an increase of between 14 percent and 24 percent in the State's funding allocation depending on the criteria used.

Mr. Ramseur, how can we ensure that any updated allocation formula reflects disadvantaged community needs, water quality improvements, and population criteria?

Mr. RAMSEUR. If you were to adjust the formula, you would want to have it follow the most recent needs survey published by EPA. And if you wanted to include certain needs within that scope you would need to make that clear in the provisions of the Clean Water Act that you are amending.

Senator PADILLA. All right. I appreciate that answer. I look forward to working with you to accomplish just that. I am sure California is not the only State in a situation with significantly different circumstances than when the current formulas were established.

I do have a followup question as it pertains to water affordability. Water systems across the Country are increasing their rates to help fund necessary drinking water and wastewater infrastructure repairs and upgrades. Obviously, the need goes far beyond the amount that has been approved in the Bipartisan Infrastructure law and what may be envisioned in further infrastructure investments.

But at the same time, households across the Country are facing millions of dollars of water debt. So Mr. Ramseur, how would you recommend that we account for affordability in the Clean Water State Revolving Fund formula?

Mr. RAMSEUR. When you are thinking about the scope of needs, assuming you are using needs as the key factor, or one of the key factors in a revised formula, you could adjust the definition of needs to include those types of factors. Currently, the States have the ability and the authority to provide funding through the SRF programs for these types of objectives, up to 30 percent in general from their annual allotment. They are required, as of recent enactment of the Infrastructure Investment and Jobs Act, to provide 10 percent of their annual allotment for this purpose.

Senator PADILLA. OK, that is a good start. I look forward to following up with you on these items and working to update the criteria and the formulas that suit, not just California's needs, but every State's needs in this modern era. Thank you very much. Thank you, Mr. Chair.

Senator CARPER. Thank you, Senator Padilla.

Has Senator Duckworth joined us? No, OK. With that, we will wait for another hearing to ask some questions. We are going to wrap it up here. I have several more questions I want to ask for the record.

A quick story. When Winston Churchill was bounced out of office as Prime Minister of England right after World War II, after leading his country valiantly to victory, he was leaving 10 Downing Street, and he was asked by a reporter, "Mr. Churchill, is this the end?" And he said, "This is not the end. This is not the beginning of the end, this is the end of the beginning." And today is really the beginning. It is the end of the beginning. But we appreciate your helping us kick this off.

We will not see a rush to judgment. Senator Kelly, I will yield to you, you can close it up. I think the folks who are on this committee, including the staff who are on this committee, can be proud of the historic drinking water and wastewater investments that we delivered as part of the Bipartisan Infrastructure Law last year. As we look to the future, we look forward to continuing our conversa-

tion with you and others as smart as you, if they are out there. We look forward to continuing our conversation with members of this committee and our staffs and other stakeholders in order to improve the way we invest in our Nation's water infrastructure.

A little bit of housekeeping before I yield to Senator Kelly. I want to ask unanimous consent to submit for the record a variety of materials that include letters from stakeholders, and other materials that relate to today's hearing.

[The referenced material follows:]



Washington Office
25 Massachusetts Ave., N.W.
Suite 500
Washington, D.C. 20001
(202) 789 - 7850
Fax: (202) 789-7859
Web: <http://www.asce.org>

Statement for the Record of

The American Society of Civil Engineers

on

**“Oversight of the Clean Water State Revolving Loan
Fund Formula”**

Committee on Environment and Public Works

U.S. Senate

March 16, 2022

Introduction

The American Society of Civil Engineers (ASCE) appreciates the opportunity to submit our position on the importance of long-term, strategic investment in our nation's water infrastructure systems. ASCE also thanks the Senate Environment and Public Works Committee for holding a hearing exploring this critical issue. ASCE is eager to work with the committee to ensure that programs like the Clean Water State Revolving Fund (CWSRF) are able to provide the greatest value and be of greatest use to improve wastewater and stormwater infrastructure systems.

The passage of the Infrastructure Investment and Jobs Act (IIJA) provided a much needed down payment to revitalize the nation's water infrastructure. As implementation of this historic legislation continues, it is important to ensure that momentum continues to build to address the critical condition of our nation's water infrastructure. This includes identifying critical wastewater and stormwater infrastructure needs nationwide in order effectively utilize the CWSRF to support needed upgrades and retrofits. And it will require a sustained, long-term investment beyond that of the IIJA in order to address a growing water infrastructure funding gap.

ASCE's 2021 Infrastructure Report Card

Infrastructure is the foundation that connects the nation's businesses, communities, and people, serves as the backbone to the U.S. economy, and is vital to the nation's public health, safety, and welfare. Every four years, ASCE publishes the *Infrastructure Report Card*, which grades 17 major infrastructure categories using a simple A to F school report card format. Last March, ASCE released its *2021 Infrastructure Report Card*¹, giving the nation's overall infrastructure a grade of "C-," and identified an investment gap of \$2.2 trillion. While the overall GPA increased into the "C" range for the first time since ASCE began grading the nation's infrastructure in 1998, much of critical water resources infrastructure remains in the "D" range. In the 2021 report card, wastewater infrastructure received a grade of "D+," while stormwater infrastructure received a grade of "D".

To further raise these grades, ASCE urges Congress to prioritize policies which reduce the water infrastructure funding gap. This includes ensuring that programs like the CWSRF receive robust annual appropriations, and reducing the overall infrastructure funding gap by encouraging greater investment from public and private sources.

Ongoing Clean Water Infrastructure Challenges

Communities nationwide rely on effective stormwater and wastewater infrastructure to ensure public health and safety, protect property, and ensure the sustainability of other infrastructure systems. State and local governments rely on programs like the CWSRF to finance repairs and replacement of aging infrastructure systems that are often operating below the needed capacity and have aged beyond their design life.

¹ <https://www.infrastructurereportcard.org/>

These challenges not only pose risks to public health and safety, but also threaten the health of the nation's economy. Across all sectors of water infrastructure (wastewater, stormwater, and drinking water), there is an overall need for approximately \$1.04 trillion in investment. Prior to passage of the IJA, total funding for water infrastructure was \$611 billion, creating a funding gap of \$434 billion over the next decade. In 2020, ASCE commissioned a study as part of its *Failure to Act* campaign. The study, entitled *The Economic Benefits of Investing in Water Infrastructure*², shows that water infrastructure investment will need to increase by \$2.2 trillion, or \$109 billion per year, over the next two decades in order to close the funding gap. If this gap is not addressed, the study found, then by 2039 failing water infrastructure will cost water reliant businesses as much as \$250 billion in lost revenue. Households would see costs rise nearly 7 times higher than today and incur a nearly \$8 billion increase in healthcare costs.

The passage of IJA provides an opportunity to make progress in closing the funding gap. The infrastructure law provided a five-year overall investment of \$55 billion for water infrastructure needs. ASCE is currently evaluating the overall impact this new funding will have on the funding gap.

Stormwater

Stormwater infrastructure plays a vital role in protecting communities from hazards such as flooding caused by extreme weather conditions, and protects the environment by minimizing the impact of stormwater runoff which can contaminate rivers, lakes, and reservoirs. The United States currently holds an estimated 3.5 million miles of storm sewers, 270 million storm drains, and 2.5 million stormwater treatment assets. And while stormwater infrastructure's intended capacity is derived from design standards used to build these systems, the reality is that capacity is driven by factors such as age, and the growing intensity of storms and increased levels of precipitation brought on by climate change. This reality means that the actual capacity of stormwater infrastructure does meet the intended design. This leads to an increased need for infrastructure retrofits and replacements, which places additional financial strain on communities. These challenges are particularly felt by low-income communities which are limited the most in terms of infrastructure capacity to adapt to increasingly severe weather conditions.

As stormwater infrastructure becomes less able to accommodate changing and more intense weather patterns, the more they will become overwhelmed. This will have significant implications for public safety as it will affect other infrastructure systems. Increased flooding from overwhelmed stormwater infrastructure can lead to sinkholes, flash floods, and collapsed roadways. Stormwater risks flowing into and overwhelming sanitary systems which can lead to untreated sewage spills, endangering public health.

² <https://infrastructurereportcard.org/wp-content/uploads/2021/03/Failure-to-Act-Water-Wastewater-2020-Final.pdf>

Wastewater

Effective, well maintained wastewater infrastructure systems are critical to ensuring public health. In the United States, there are more than 800,000 miles of public sewers, and an additional 500,000 miles of lateral sewers which connect homes and businesses to public sewer lines. More than 16,000 publicly owned wastewater treatment systems of various sizes serve the majority of the nation's wastewater needs. Approximately 62.5 billion gallons of wastewater are treated each day at centralized wastewater treatment plants.

However, many of the nation's wastewater systems are in poor condition. On average, wastewater treatment systems nationwide operate at approximately 81 percent of their design capacity, while 15 percent of systems are at or have exceeded their capacity. The average lifespan of wastewater pipes is 50 to 100 years, and water and sewer pipes have a nationwide average age of 45 years, with some being more than 100 years old. These condition and capacity concerns, coupled with a more than 60 percent decrease in capital investment since the late 1970's, mean that state and local governments are forced to shoulder increasingly larger financial burdens for project costs and operation & maintenance expenses.

Proposed Solutions

IIJA provided a critical down payment for water infrastructure with more than \$50 billion in new funds. One of the most important provisions in IIJA was the reauthorization of the State Revolving Fund programs, including the Clean Water SRF. An investment of \$11.7 billion for CWSRF capitalization grants, as well as an additional \$1 billion to address emerging contaminants will help to reduce the investment gap. These funds will also have a strong impact on disadvantaged communities with 49 percent of SRF funds set aside as grants or forgivable loans.

However, this will not be suitable to fully close the gap. Sustained investment in capitalization will be required over the next several years. In 2019, state agency requests for CWSRF funds totaled nearly \$56 billion. Congress recently provided the program a flat funding level of \$1.639 billion for the 2022 fiscal year, which is woefully below the program's needs.

To address these concerns, ASCE urges Congress to support the following priorities:

1. Provide a substantial funding increase for the CWSRF program in order to keep pace with rising capitalization costs. Combined funds from IIJA, as well as a 20 percent matching requirement for states, will help to further close the investment gap over the next five years. Additionally, further funding will ease the burden on disadvantaged communities, which continue to shoulder increased shares of financial costs for water infrastructure projects.
2. Create legislation to establish a dedicated source of revenue for stormwater and wastewater infrastructure projects that would provide a stable, long-term basis for financing for these critical systems, and further close the investment gap.

3. Timely, regular completion of a new Clean Watersheds Needs Survey (CWNS) to determine the nation's clean water infrastructure needs and fulfilling water quality goals under the Clean Water Act. In years past, the CWNS has been typically completed every four years, however the most recent CWNS was completed in 2012 and showed a total need of \$271 billion. Future CWNS should provide a comprehensive picture of the nation's clean water infrastructure needs, including more robust gathering of information on stormwater infrastructure needs. Stormwater infrastructure data that captures current needs and challenges is critical to address maintenance and repair for aging systems, improve pollution control, and mitigate the increasingly severe impact of urban flooding. IIIA authorized \$5 million for EPA to complete a new CWNS within two years of enactment, and to maintain a four-year cycle thereafter. Congress should ensure that it fully funds CWNS in FY23 so that it may be completed in the time frame mandated by IIIA and ensure sustained funding thereafter so assessments may be determined every four years.
4. Eliminate the state cap on private activity bonds for water infrastructure projects to bring an estimated \$6 billion to \$7 billion annually in new private financing to bear on the problem.

In conclusion, ASCE believes that in order to ensure the Clean Water State Revolving Fund is able to be utilized in the most effective way possible, Congress should do everything it can to increase its value by providing robust and sustained funding supported by policies that allow communities to leverage private investments, and creating complimentary dedicated funding streams for wastewater and stormwater infrastructure. This must be accompanied by timely assessments of nationwide clean water infrastructure needs. This will federal agencies and policy makers in determining proper funding allocations and allow federal dollars to go further by determining where it is of the most need and most effective use.

Senator CARPER. Additionally, Senators will be allowed to submit questions for the record through the close of business on Wednesday, March 30th. We will compile those questions, send them to our witnesses who we will ask to reply by April 13th. And with that, I yield to Senator Kelly to close it out. And again, our thanks to each and every one of you, some of you came a long way, and some of you came a short way. But in both instances, we are grateful, very much. And some of you came from Ohio.

Senator KELLY. Thank you, Mr. Chairman, and thank you, Senator Capito, again, for having this hearing.

I have a couple of questions I want to submit for the record to Ms. Dreyfuss-Wells, and Ms. Watson, another for Mr. Ramseur. But I do have one question. I want to really just quickly followup, it is about needs again. We have this historic drought in Arizona. This question is for Mr. Ramseur. We are trying to capture and recharge aquifers. We are treating stormwater and even wastewater and re-using it, and turning it into drinking water like we do on the space station. I have experienced this myself at times. It actually works pretty well.

But we are looking at needs, needs of a State like Arizona. Do you feel that needs evolve, and also if things like groundwater recharge or treatment of stormwater or wastewater should be able to be funded through the Clean Water SRF because these are changing needs?

Mr. RAMSEUR. The needs that have been allowed to be addressed through the Clean Water SRF have evolved over time. The initial list of categories was three, and in 2014, Congress amended that list of eligible category types and now it is up to 13 or 14. So over time, Congress has recognized that the needs have changed throughout the States and provided more flexibility to the States to address their specific needs.

Senator KELLY. Thank you. And again, Senator Capito, thank you for holding this hearing, and thanks again for everybody being here. I do have some questions for the record.

Senator CAPITO.

[Presiding.] Thank you. Thanks to the witnesses, safe travels, and we appreciate you all being here today. Thank you.

[Whereupon, at 11:32 p.m., the hearing was adjourned.]

