Congressional Research Service
Informing the legislative debate since 1914

Clean Water State Revolving Fund Allotment Formula: Background and Options

March 15, 2023

Congressional Research Service
https://crsreports.congress.gov
R47474

CRS REPORT
Prepared for Members and
Committees of Congress

Congressional Research Service
Informing the legislative debate since 1914

SUMMARY

R47474

March 15, 2023

Jonathan L. Ramseur
Specialist in Environmental Policy

Clean Water State Revolving Fund Allotment Formula: Background and Options

In 1987, Congress amended the Clean Water Act (CWA) to establish the Clean Water State Revolving Fund (CWSRF) program. For the past 30 years, the CWSRF program has been the principal federal funding program for wastewater infrastructure projects throughout the country. Each state and Puerto Rico administers its own CWSRF program. The CWSRF programs provide financial assistance to support a variety of projects and activities, including construction of wastewater treatment facilities and stormwater systems.

The 1987 CWA amendments included CWSRF 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 potential 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% to each state, have effectively been in place since the program's establishment.

The CWA requires EPA, in coordination with the states, to estimate the state-level cost of construction for wastewater infrastructure, every two years. Since 1987, EPA has produced seven wastewater infrastructure needs surveys. EPA published its most recent survey in 2016. In addition, the U.S. Census Bureau has prepared four reports on state population levels. None of this more recent information is reflected in the statutory funding allocation.

The Water Resources Reform and Development Act of 2014 directed EPA to report to Congress whether the allotment adequately addressed water quality needs. EPA published this report in 2016. Based on the difference between the current allotments and the updated needs surveys and state population estimates, EPA concluded that most states did not receive appropriated funds in proportion to their infrastructure needs estimates or population. For example, EPA found that the current formula was inadequate for 39 states and territories compared with the most recent needs survey.

The CWSRF program's allotment formula has been one of the more debated issues during considerations of CWA reauthorization legislation. Considerations of states' potential allotment decreases or increases bear heavily on discussions of policy choices reflected in alternative formulations. If Congress chooses to deliberate on amendments to the CWSRF program 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.

Congress may consider the allocation formulas of other water infrastructure programs, such as the parallel Drinking Water State Revolving (DWSRF) program. Under this program, EPA allots funding among the states based on the results of the most recent DWSRF needs survey. Some may argue that factors other than needs estimates should be included for CWSRF allocation, and EPA has pointed out the data from its most recent wastewater infrastructure needs survey were incomplete. In addition, if policymakers consider changing the CWSRF allocation formula, they could include 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, and other funding programs have included such factors.

If Members consider the allotment formula in the 118th Congress, they may assess allotment in the context of two recent developments in CWSRF appropriations. First, the supplemental appropriations in the Infrastructure Investment and Jobs Act (IIJA) increased CWSRF appropriations in FY2022 and FY2023 by approximately 100% compared to previous years. On the one hand, the increased appropriations may help alleviate the concern—as noted in EPA's 2016 report—that the current allotment is not "adequately reflecting" states' water quality needs. On the other hand, some may argue that the increased appropriations highlight EPA's finding that "most states do not currently receive appropriated funds in proportion to their reported water quality needs or population." Second, both the regular appropriations in FY2022 and FY2023 included "community project funding/congressionally directed spending" (CPF/CDS) items, which effectively decreases the total allotment available for state CWSRF programs. Although the CPF/CDS funds support the same types of projects that are financed by CWSRF programs, the CPF/CDS funding complicates the state-by-state allotment analysis, as these appropriations are not subject to the CWA allotment formula. In addition, policymakers may want to consider the effects of the CPF/CDS component when the supplemental appropriations from IIJA cease in FY2027.

Contents

Figures

Tables

Appendixes

Contacts

Introduction

For the past 35 years, the Clean Water State Revolving Fund (CWSRF) program has been the primary federal funding program for wastewater infrastructure projects throughout the country. Congress established the CWSRF program with amendments to the Clean Water Act (CWA) in 1987. The CWSRF program is implemented at the state level, with each state administering its own SRF program. The U.S. Environmental Protection Agency (EPA) receives annual appropriations to support the CWSRF program. Since 1987, Congress has appropriated more than $56 billion to the CWSRF program. EPA distributes CWSRF grants to the states based on a CWA statutory formula that has remained in place since 1987.

The CWA allotment formula has received increased attention from policymakers and stakeholders in recent years, particularly in the context of the CWSRF supplemental appropriations provided by the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58). In the 116th and 117th Congresses, Members introduced legislation that would modify the allotment formula. In March 2022, the Senate Committee on Environment and Public Works held a hearing on the CWSRF allotment formula.[1]

This report discusses the history of the CWSRF allotment formula, selected options for modifying the formula, and estimated state-by-state results from these selected options. The first sections of the report include background information about the federal funding for wastewater infrastructure, estimates of wastewater infrastructure funding needs, and an overview of the CWSRF program and its funding history. Following this background information, the report discusses results from EPA's 2016 report, which assessed several options for modifying the allotment formula. This section compares state-by-state allotment outcomes from these options with the current allotment framework. The next section provides examples of funding allotment formulas in other water infrastructure programs. The final section offers concluding observations.

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.[2] Comprehensive amendments in 1972 revised the act and provided its current framework.[3] 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.[4] Under this program, the federal government allocated funding to the states on the basis of population. There was no statutory formula. Nor

[1] U.S. Congress, Senate Committee on Environment and Public Works, *Oversight of the Clean Water State Revolving Loan Fund Formula*, 117th Cong., 2nd sess., March 16, 2022.

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

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

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

was there a systematic process for the federal government or states to estimate and report on funding needs for sewage treatment.

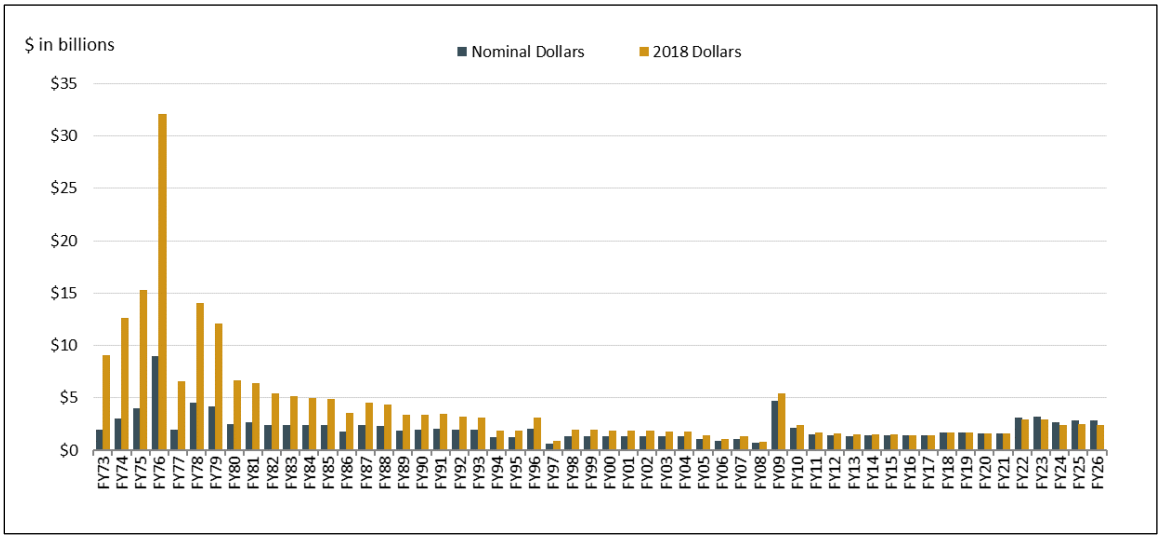
As amended in 1972, Title II of the CWA authorizes grants to states for wastewater treatment plant construction under a program administered by the EPA. Federal funds were provided through annual appropriations under a state-by-state allocation formula contained in the act. States used their annual allotments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

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.

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 both annual appropriations for FY2022 and FY2023 and emergency supplemental appropriations (FY2022-FY2026) provided in the IIJA(P.L. 117-58).

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 FY2024 through FY2026 are likely to change reflecting funding for the CWSRF through annual appropriations (FY2024-FY2026). 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.

Since the enactment of the 1972 CWA, EPA has published 16 Clean Watersheds Needs Surveys. Since 1996, EPA has periodically collected information from states and territories and (typically) published a new survey every four years.[6] 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 requirements and objectives exceeds $270 billion over a 20-year period.[7] Other organizations using different methods have estimated larger costs for wastewater infrastructure needs.[8]

IIJA amended the CWA by adding a new section to the CWSRF provisions. CWA Section 609 directs EPA to conduct a needs assessment for all projects eligible under the CWSRF program by November 2023 and at least every four years thereafter.[9]

Clean Water State Revolving Fund Program

Amendments to the CWA in 1987 established the Clean Water State Revolving Fund (CWSRF) program, which is the principal federal funding program for wastewater infrastructure projects throughout the country.[10] 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.[11]

[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."

[6] For more details, see EPA, "Clean Watersheds Needs Survey," https://www.epa.gov/cwns.

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

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

[9] 33. U.S.C. §1389.

[10] 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. Ramseur and Mary Tiemann.

[11] 33 U.S.C. §1383.

The CWSRF program is implemented at the state level, with each state and Puerto Rico administering its own SRF program.[12] 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.[13] The CWA requires EPA to annually review states' implementation activities and periodically audit state programs.[14]

CWSRF 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 within that state. 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 deadlines, goals, and requirements of the act, including municipal compliance.[15] After satisfying the "first use" requirement, funds may be used to implement other eligible uses. Until 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.[16]

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.

[12] 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.

[13] 33 U.S.C. §1386.

[14] 33 U.S.C. §1386.

[15] 33 U.S.C. §1382(b)(5).

[16] 33 U.S.C. §1383(c).

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 a percentage of their grants as additional subsidization. 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.[17] In addition, in 2021, IIJA 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 FY2023. The funding levels for FY2024 through FY2026 are likely to change reflecting funding for the CWSRF through annual appropriations.

As the figure indicates, regular appropriations levels remained relatively consistent until FY2022. The FY2022 CWSRF regular appropriations (P.L. 117-103) of $1.639 billion included "community project funding/congressionally directed spending" (CPF/CDS) items, which some have referred to as "earmarks." The act set aside $443.6 million (27%) of the $1.639 billion to CPF/CDS. Such funds are to be distributed directly to recipients, instead of to states' SRF programs. Thus, the reservation of funds effectively decreased the total amount available from regular appropriations for allotment as state capitalization grants to $1.195 billion.[18] The FY2023 CWSRF regular appropriations of $1.639 billion also included CPF/CDS items (P.L. 117-328). The act set aside $863.1 million (53%) of the FY2023 CWSRF appropriation to CPF/CDS. As with the FY2022 appropriation, the reservation of CPF/CDS effectively decreased the total amount available for allotment as state capitalization grants to $776 million.[19]

The figure also illustrates (1) the supplemental appropriations from ARRA, which provided $4 billion in FY2009, and (2) supplemental appropriations from IIJA for FY2022 through FY2026.[20]

[17] 33 U.S.C. §1383(i).

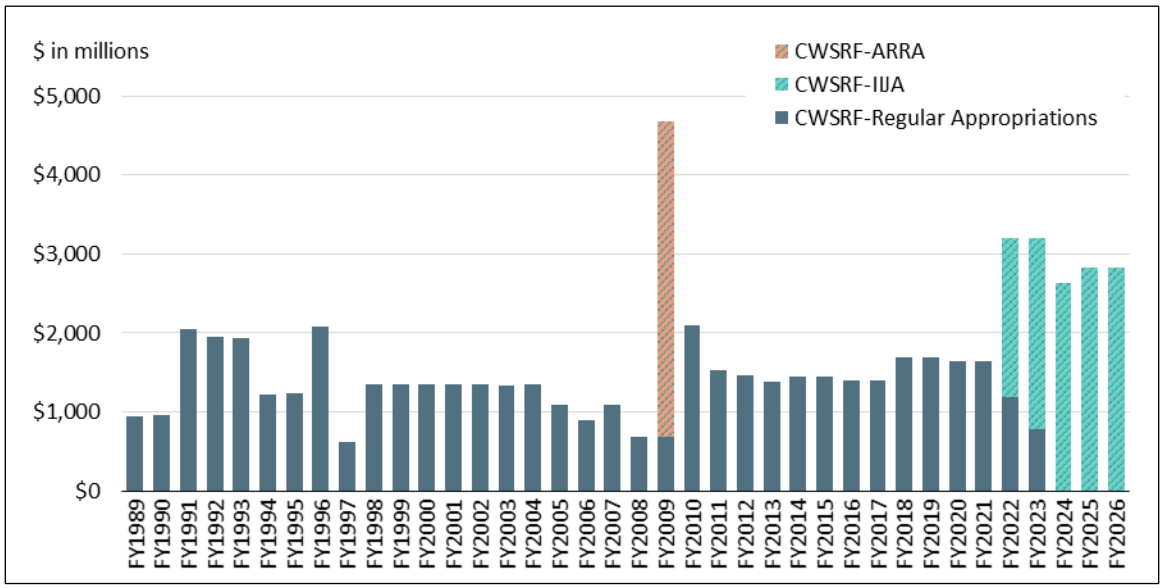
[18] For more information, see CRS In Focus IF12103, *U.S. Environmental Protection Agency (EPA) Water Infrastructure Programs and FY2022 Appropriations*, by Elena H. Humphreys and Jonathan L. Ramseur.

[19] For more information, see CRS In Focus IF12309, *U.S. Environmental Protection Agency (EPA) Water Infrastructure Programs and FY2023 Appropriations*, by Elena H. Humphreys and Jonathan L. Ramseur.

[20] 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)

Does Not Include Community Project Funding/Congressionally Directed Spending Items



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). IIJA provided supplemental appropriations for the CWSRF for FY2022 through FY2026. Amounts reflect applicable rescissions but do not include supplemental appropriations for specific locations in P.L. 116-20 and P.L. 116-113. The funding levels for FY2024 through FY2026 are likely to change reflecting funding for the CWSRF through annual appropriations (FY2024-FY2026).

The figure does not include "community project funding/congressionally directed spending" (CPF/CDS) items, which some have referred to as "earmarks." The FY2022 CWSRF regular appropriations (P.L. 117-103) set aside $443.6 million (27%) of the $1.639 billion to CPF/CDS. Such funds are to be distributed directly to recipients, instead of to states' SRF programs. Thus, the reservation of funds effectively decreased the total amount available from regular appropriations for allotment as state capitalization grants to $1.195 billion, as illustrated in the figure. The FY2023 CWSRF regular appropriations (P.L. 117-328) set aside a larger percentage to CPF/CDSW items: $863.1 million (53%) of $1.639 billion. As with the FY2022 appropriation, the reservation of CPF/CDS effectively decreases the total amount available for allotment as state capitalization grants to $776 million, as illustrated in the figure.

In addition, the figure does not include the special purpose project grants (also referred to as "earmarks") that were provided between FY1989 and FY2010. In contrast to the FY2022 and FY2023 CPF/CDS items, the special project grants appropriations were not provided as set-asides, but the effective result of the special project grant funding was to reduce the amount of funds provided to the SRF programs. For more information, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramseur and Mary Tiemann.

History of CWA Funding Allotments[21]

Prior to the 1972 CWA, the federal government administered a comparatively small program of aid for constructing municipal wastewater treatment plants.[22] Under this program, assistance was

[21] For a more detailed discussion, see CRS Report RL31073, *Allocation of Wastewater Treatment Assistance: Background and Formula History*, by Jonathan L. Ramseur.

[22] The Water Pollution Control Act of 1948 (P.L. 80-845) first authorized federal aid to municipal wastewater treatment

allocated to 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, at the time. 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: Background and Formula History*, by Jonathan L. Ramseur.

In addition to the needs and population components, earlier allotment formulas contained other factors not identified in Table 1. 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

authorities. 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.

changing to a needs basis for grants allocation despite limitations of available needs information was explained in the Committee on Public Work's report on the 1972 legislation.[23]

> 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.
>
> 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.[24] 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.[25]

---

[23] 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.

[24] S. 2812 (93rd Congress).

[25] 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.

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 borrowed elements from both the Senate and House proposed legislation (S. 1952 and H.R. 3199, respectively, 95th Congress). 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, 97th Congress). For FY1983 through FY1985, the act used the average of the House and Senate formulas (S. 1716, 97th Congress). 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 amended the CWA to establish the funding allocation percentages that generally remain in effect to this day.[26] The legislative history of the 1987 amendments does not include an explicit statement describing the factors that went into the final allocation formula.[27]

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.[28] The allotments provide each state with a minimum of 0.5% of the total appropriation.

[26] 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.

[27] CWA Legislative History.

[28] 33 U.S.C. §1285(c)(3).

EPA's 2016 CWSRF Allotment Report

Among other CWSRF provisions, 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."[29] EPA completed its report in 2016.[30] EPA noted in its report that since the original allotment in 1987, the U.S. Census Bureau has provided three population estimates (1990, 2000, and 2010), and EPA and the states have updated the needs estimates seven times.[31] 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 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."[32] 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 report) compares the current CWSRF allotment percentages to allotment percentages based on (1) 2012 needs estimates, and (2) 2010 Census data. These comparisons illustrate states' needs estimates and populations have changed since the 1987 allocation.

Three Selected Allotment Options in EPA's 2016 Report

EPA's report provided three 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.[33] 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

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

[30] 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_cwrsf_report.pdf (hereinafter EPA Allotment Report).

[31] Since EPA's 2016 report, the U.S. Census Bureau has published the 2020 Census report.

[32] EPA Allotment Report, p. 5.

[33] EPA Allotment Report, p. 9.

because "counts from the decennial census generally are regarded as more accurate on a State-by-State basis than population projections."[34]

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.[35] 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.[36] 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 out 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 its potential increase to 200%.

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.

Comparisons of Selected Allotment Options to Current Allotment

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.

[34] EPA Allotment Report, p. 9.

[35] EPA Allotment Report, p. 10.

[36] 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.

- 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. Results from EPA's 2016 CWSRF Allotment Options Analysis, Including 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%

State or Territory	Current Allotment	Option 1			Option 2			Option 3		
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%
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%

State or Territory	Current Allotment	Option 1			Option 2			Option 3		
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_cwrsf_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.

Table 4 also illustrates the role that the limitations play in the options. 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 Changes 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% to 196%
Option 2 – limited	15	3	30	NA	7	-25% to 198%
Option 3 – limited	18	3	28	NA	7	-25% to 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% to 216%
Option 2 – not limited	17	3	14	15	7	-59% to 286%
Option 3 – not limited	18	5	15	11	7	-59% to 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.

Notes: In each of the three "limited" options, EPA restricts a state's potential allotment decrease to -25% and potential increase to 200%. The "not limited" options do not have this restriction on increases or decreases.

Allotment Formulas in Related Programs

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

Drinking Water State Revolving Fund Program[37]

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).[38] 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.[39] 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.[40]

As of the date of this report, 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%; and
- 23 states' allotments remained the same, 19 of which remained at the minimum 1% allotment level.[42]

[37] Elena Humphreys, Analyst in Environmental Policy, authored this section.

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

[39] 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.

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

[41] For more information see the U.S. Environmental Protection Agency'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.

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 (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
- 16.67% for annual average precipitation
- 16.67% for total population
- 16.67% for urban population

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

Water Pollution Control Grants[46]

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]

[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.

[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

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.

SDWA Small and Disadvantaged Communities Grant Program[51]

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 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

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.

[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-19a(a)(1)).

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 reported 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]

IIJA provided five fiscal years of supplemental appropriations for this grant program for emerging contaminant projects. EPA released an implementation document for the IIJA appropriations in February 2023. In this document, EPA states that if all the states, the District of Columbia, and territories participate then the allotments are "based on a formula that includes factors for population below poverty, small water systems, and occurrence of unregulated emerging contaminants."[57]

Concluding Observations

Crafting an allotment formula has been one of the most debated issues during CWA reauthorizations. 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.

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

[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.

[57] EPA, Infrastructure Investment and Jobs Act (IIJA) Bipartisan Infrastructure Law (BIL) Emerging Contaminants in Small or Disadvantaged Communities Grant Program, February 2023, https://www.epa.gov/system/files/documents/2023-02/EC%20Grant%20implementation%20manual_February%202023_final_508_0.pdf.

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.[58]

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 have applied, and for appropriations funds in excess of that amount, allotment would have been 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, 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 required that no state's allotment would increase by more than 50% or decrease by more than 25% compared with its current allotment.

In the 116th Congress, S. 3211 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, 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).[59]

In the 117th Congress, S. 3031 would have amended the allotment formula. For FY2022 through FY2026, EPA would have first provided states with the same amount of funding they received in FY2021. Then, EPA would have allocated 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 FY2026 (e.g., $2.0 billion in FY2022). For FY2027 and subsequent fiscal years, S. 3031 would have directed 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%).[60]

In the 118th Congress, policymakers may consider the allotment formula in the context of two recent developments in CWSRF appropriations. First, as illustrated in **Figure 2**, the supplemental appropriations in IIJA increased CWSRF appropriations in FY2022 and FY2023 by approximately 100% compared to previous years. On the one hand, some may argue that the increased appropriations help alleviate the concern—as noted in EPA's 2016 report—that the current allotment is not "adequately reflecting" states' water quality needs. On the other hand, some may argue that the increased appropriations highlight EPA's finding that "most states do not currently receive appropriated funds in proportion to their reported water quality needs or population." Second, both the regular appropriations in FY2022 and FY2023 included CPF/CDS

[58] 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.

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

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

items, which effectively decreased the total allotment available for state CWSRF programs. Although the CPF/CDS funds support the same types of projects that are financed by CWSRF programs, the CPF/CDS funding complicates the state-by-state allotment analysis, as these appropriations are not subject to the CWA allotment formula. In addition, policymakers may want to consider the effects of the CPF/CDS component when the supplemental appropriations from IIJA cease in FY2027.

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) 2012 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%

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	
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_cwrsf_report.pdf.

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.

Author Information

Jonathan L. Ramseur
Specialist in Environmental Policy

Disclaimer