

Wastewater Infrastructure Funding: Background and Affordability Issues

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The condition of wastewater infrastructure and the financial and technical challenges some communities face in ensuring adequate infrastructure services continue to generate interest among Members of Congress and a range of stakeholders. Several events and circumstances have increased national attention to local wastewater infrastructure, including infrastructure damage from natural disasters and the nationwide need to repair or replace aging wastewater infrastructure. In many communities, wastewater infrastructure may require repair or replacement to maintain levels of service and comply with relevant regulatory requirements.

SUMMARY

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Jonathan L. Ramseur Specialist in Environmental Policy

Approximately 17,500 publicly owned treatment works operate in the United States. They provide wastewater treatment services for approximately 270 million people (about 80% of the total U.S. population in 2022). The remaining 20% of the U.S. population primarily relies on decentralized wastewater infrastructure, such as septic tanks.

In the U.S. Environmental Protection Agency's (EPA's) 2024 wastewater infrastructure needs assessment, EPA estimated national wastewater infrastructure needs of \$630 billion over 20 years. Estimated needs increased by about 45% between 2016 and 2024.

A 2025 study from the Congressional Budget Office indicates that—since at least the 1950s—state and local governments have contributed the vast majority of public funding for wastewater infrastructure projects. The study indicates that in 2023, the state and local share of such spending was 92%, while the federal share was 8%.

The costs of wastewater services have increased across the United States in recent years. EPA states that a number of factors have played a role in these increased costs: aging infrastructure and deferred maintenance, regulatory requirements, inflation, and supply chain disruptions. Although Congress has provided increased funding levels in recent years—particularly through supplemental appropriations—EPA finds that the need for capital infrastructure improvements, as well as operations and maintenance costs, are challenging for communities to support with "affordable" water rates. As these needs and costs have increased, water utilities have raised rates, and household bill payments have increased. For example, between 1998 and 2024, household payments for water and sewer increased at roughly twice the rate of the consumer price index.

The 2022 Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) directed EPA to submit a report to Congress regarding affordability for water infrastructure—which includes both wastewater and drinking water services—and provide recommendations to address affordability concerns. In its report, EPA estimated that between 12.1 million and 19.2 million U.S. households (or 9.2% to 14.6%) lack affordable access to these services. EPA provided a number of recommendations, including the establishment of a permanent federal water assistance program, analogous to the Supplemental Nutrition Assistance Program and the Low Income Home Energy Assistance Program. EPA estimated the total annual cost of unaffordable water service bills is between \$5.1 billion and \$8.8 billion.

Policymakers may consider modifying existing provisions in the Clean Water Act (CWA) to address affordability. Several options may help achieve this goal. One option would be for Congress to amend the Clean Water State Revolving Fund (CWSRF), the key federal funding program for wastewater infrastructure. In a 2016 report that examined the CWSRF state allotment formula, EPA concluded that most states did not receive appropriated funds in proportion to their infrastructure needs estimates or populations. A 2024 Government Accountability Office report reached similar conclusions.

Another option for Congress to consider is altering the CWSRF additional subsidization provisions to enhance their effect on affordability. Further, recent appropriations (FY2022, FY2023, and FY2024) have included community project funding/congressionally directed spending (CPF/CDS), which some refer to as "earmarks." Although the CPF/CDS funds support the same types of projects financed by CWSRF programs, their distribution is not subject to the CWA allotment formula. If Congress continues to provide CPF/CDS funding, Congress could consider requiring that some portion of these funds be used to address affordability concerns. For example, the appropriations committees could require that Members' CPF/CDS requests include some percentage of projects that would support lower-income communities.

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Introduction

The condition of wastewater infrastructure and the financial and technical challenges some communities face in ensuring adequate infrastructure services continue to generate interest among Members of Congress and a range of stakeholders. Several events and circumstances have increased national attention to local wastewater infrastructure, including infrastructure damage from natural disasters and the nationwide need to repair or replace aging wastewater infrastructure. In many communities, wastewater infrastructure conditions may require repair or replacement to maintain levels of service and comply with relevant regulatory requirements.¹

This report discusses the wastewater infrastructure programs administered by the U.S. Environmental Protection Agency (EPA).² The report focuses on the principal federal funding program for wastewater infrastructure—the Clean Water State Revolving Fund (CWSRF) program—and includes information on selected funding and affordability issues involving wastewater infrastructure.

Wastewater infrastructure issues are often grouped with drinking water infrastructure issues. These two sets of issues taken together are considered as a broader infrastructure category, generally described as *water infrastructure*. Most studies combine wastewater and drinking water together as water infrastructure and typically assess the two infrastructure categories as a collective group, without isolating their respective roles or contributions to a particular issue or concern. For example, EPA's 2024 report on water affordability (discussed below) includes estimates of access to water services and water service costs, among other analyses. This report generally presents these estimates in the context of the broader water infrastructure category. Thus, although this report focuses on wastewater infrastructure, some information in this report is presented in the broader context of water infrastructure.

Wastewater Infrastructure Overview

Based on EPA data from 2022, approximately 17,500 publicly owned treatment works operate in the United States.³ They provide wastewater treatment services for approximately 270 million people (about 80% of the total U.S. population in 2022).⁴ The remaining 20% of the U.S. population relies primarily on decentralized wastewater infrastructure, such as septic tanks.⁵ U.S.

¹ See, for example, Environmental Protection Agency (EPA), 2022 Clean Watersheds Needs Survey—Report to Congress, 2024, https://www.epa.gov/system/files/documents/2024-05/2022-cwns-report-to-congress.pdf; American Society of Civil Engineers, 2021 Report Card for America's Infrastructure, 2021, https://infrastructurereportcard.org/wp-content/uploads/2020/12/Wastewater-2021.pdf; and American Water Works Association, Buried No Longer: Confronting America's Water Infrastructure Challenge, 2012, https://www.awwa.org/wp-content/uploads/Buried-No-Longer.pdf.

² Other federal programs also support wastewater infrastructure projects, including programs administered by the U.S. Department of Agriculture, the Department of the Interior, the Department of Housing and Urban Development, and the Department of Commerce. For information on these programs, see CRS Report R46471, *Federally Supported Projects and Programs for Wastewater, Drinking Water, and Water Supply Infrastructure*, coordinated by Jonathan L. Ramseur.

³ EPA, Clean Watersheds Needs Survey (CWNS)—2022 Report and Data, Data Dashboard, https://sdwis.epa.gov/ords/ sfdw_pub/r/sfdw/cwns_pub/about.

⁴ Based on U.S. Census data, American Community Survey, https://www.census.gov/programs-surveys/acs.

⁵ State-specific data on decentralized system use are limited. The most recent such data are from 1990. The 1990 data indicate that the percentage of households that used public systems versus decentralized systems varied by state, ranging from 90% of households using public systems in California to 43% in Vermont. See U.S. Census, "Historical Census of Housing Tables: Sewage Disposal," https://www.census.gov/data/tables/time-series/dec/coh-sewage.html.

Census data indicate that less than 1% of households had neither centralized nor decentralized wastewater infrastructure in 2023.⁶

Wastewater Infrastructure Needs Estimates

EPA periodically reports on the capital cost of wastewater infrastructure needs. In EPA's most recent assessment (published in 2024), EPA estimated national wastewater infrastructure needs of \$630 billion over 20 years.⁷ **Figure 1** compares the needs estimates—in constant 2023 dollars— by need category from the 2024 report and the two prior reports, published in 2016 and 2010.⁸ The figure indicates that total needs estimates decreased from 2010 to 2016 by about 20%, due to decreases in several categories: secondary wastewater treatment,⁹ combined sewer overflow (CSO) correction,¹⁰ and stormwater management.¹¹ Total needs estimates increased by about 70% between 2016 and 2024. However, the 2016 report did not include infrastructure needs regarding nonpoint source pollution. If the "nonpoint source pollution" category is removed from the 2016 to 2024 comparison, estimated needs increase by about 45%.

The precision of the needs estimates and year-to-year comparisons should be viewed with some caution. A 2024 Government Accountability Office (GAO) report highlighted several data issues regarding the estimates.¹² GAO found that the needs estimates included incomplete data, which varied by project type and community size. For example, GAO found that needs estimates from small communities were particularly incomplete,¹³ as "small communities are typically understaffed, lack the technical expertise, and have too many competing priorities to assess their centralized clean water needs and develop documentation."¹⁴

⁶ U.S. Census, American Housing Survey, https://www.census.gov/programs-surveys/ahs.html.

⁷ EPA, 2022 Clean Watersheds Needs Survey—Report to Congress, 2024, https://www.epa.gov/system/files/documents/2024-05/2022-cwns-report-to-congress.pdf.

⁸ EPA collects data from the states to prepare the needs estimate reports. Generally, several years elapse between data collection and report publication. The 2010 report is based on 2008 data; the 2016 report is based on 2012 data; and the 2024 report is based on 2022 data.

⁹ Per EPA category definitions, secondary wastewater treatment "requires a treatment level that produces an effluent quality of 30 milligrams per liter of both 5-day biochemical oxygen demand (BOD5) and total suspended solids.... In addition, the secondary treatment must remove 85 percent of BOD5 and total suspended solids from the influent wastewater." See EPA, "About the Clean Watersheds Needs Survey (CWNS)," June 9, 2025, https://www.epa.gov/cwns/about-clean-watersheds-needs-survey-cwns.

¹⁰ Per EPA category definitions, combined sewer overflow (CSO) correction "includes needs to prevent or control the periodic discharges of mixed stormwater and untreated wastewater (CSOs) that occur when the capacity of a sewer system is exceeded during a wet weather event." See EPA, "About the Clean Watersheds Needs Survey (CWNS)," June 9, 2025, https://www.epa.gov/cwns/about-clean-watersheds-needs-survey-cwns.

¹¹ Per EPA category definitions, stormwater needs can include "geographic information systems and tracking systems, equipment (e.g., street sweepers, vacuum trucks), stormwater education program startup costs (e.g., setting up a stormwater public education center, building a traveling stormwater education display), and stormwater management plan development." See EPA, "About the Clean Watersheds Needs Survey (CWNS)," June 9, 2025, https://www.epa.gov/cwns/about-clean-watersheds-needs-survey-cwns.

¹² Government Accountability Office (GAO), *Clean Water: Revolving Fund Grant Formula Could Better Reflect Infrastructure Needs, and EPA Could Improve Needs Estimate*, July 2024, https://www.gao.gov/products/gao-24-106251 (hereinafter GAO 2024 Report).

¹³ According to GAO, officials in one state were able to obtain needs information from only "approximately 17 percent of small communities in their state, compared with 95 percent of large communities." GAO 2024 Report, p. 30.
¹⁴ GAO 2024 Report, p. 30.



Figure 1. Comparison of EPA's Wastewater Infrastructure Needs Estimates

Values Adjusted for Inflation

Source: Prepared by CRS. Data from Environmental Protection Agency (EPA), Clean Watersheds Needs Survey (CWNS) reports, https://www.epa.gov/cwns/clean-watersheds-needs-survey-cwns-2022-report-and-data. The dates in the figure indicate the date of publication. The 2010 report is based on 2008 data; the 2016 report is based on 2012 data; and the 2024 report is based on 2022 data.

Notes: "CSO" denotes combined sewer overflow. The 2016 report did not include infrastructure needs regarding nonpoint source pollution.

Table 1 provides more details about the percentage changes by category between the 2016 and 2024 reports. For example, the stormwater management need category increased by 387% and the decentralized wastewater treatment category increased by 170%, while the new conveyance category decreased by 26% and the combined sewer overflow category decreased by 40%.

Dollars in Billions; Adjusted to 2023 Dollars						
Need Category	2016 Estimate	2024 Estimate	Change	Percent Change		
Secondary Wastewater Treatment	\$69	\$70	\$1	1%		
Advanced Wastewater Treatment	\$65	\$ 87	\$22	34%		
Conveyance System Repair	\$67	\$115	\$48	72%		
New Conveyance Systems	\$58	\$43	-\$15	-26%		
Combined Sewer Overflow Correction	\$64	\$38	-\$26	-40%		
Stormwater Management	\$25	\$121	\$95	379%		
Nonpoint Source Pollution	Not reported	\$99	n/a	n/a		
Water Reuse	\$8	\$8	\$0	1%		
Decentralized Wastewater Treatment	\$29	\$78	\$49	170%		
Total Estimated Needs	\$385	\$659	\$274	71%		

Table 1. EPA's Estimated Wastewater Infrastructure Needs by Category in 2016 and 2024

Source: Prepared by CRS. Data from Environmental Protection Agency (EPA), Clean Watersheds Needs Survey (CWNS) reports, https://www.epa.gov/cwns. EPA provides definitions of these need categories at "About the Clean Watersheds Needs Survey (CWNS)," June 9, 2025, https://www.epa.gov/cwns/about-clean-watersheds-needs-survey-cwns.

Clean Water State Revolving Fund Program

Through amendments to the Clean Water Act (CWA) in 1972, Congress established the principal federal program to support wastewater treatment plant construction and related eligible activities.¹⁵ This 1972 program significantly enhanced what had previously been a modest grant program. CWA Title II authorized grants to states for wastewater treatment plant construction under a program administered by EPA. Federal funds were provided through annual appropriations under a state-by-state allocation formula contained in the CWA. The formula was based on states' financial needs for treatment plant construction and population. States used their allotments to make grants to local governments to build or upgrade categories of wastewater treatment projects, including treatment plants, related interceptor sewers, correction of infiltration/inflow of sewer lines, and sewer rehabilitation. This grant program was one of the largest nonmilitary public works programs in U.S. history.

CWA amendments enacted in 1987 (P.L. 100-4) began the phaseout of the Title II program and initiated a new program to support wastewater infrastructure projects: the CWSRF program. Under the CWSRF, states continue to receive federal grants, but now they provide a 20% match and use the combined funds to make subsidized loans to communities. Monies used for projects are repaid to states to create a "revolving" source of assistance for other communities.

The CWSRF program fully replaced the Title II program in FY1991. During the transition from the Title II program to the CWSRF program, Congress began to provide "earmarked" water infrastructure grants to individual communities and regions. In subsequent years, the earmarked funds accounted for a significant amount of the total appropriation. General opposition by Members of Congress to congressional earmarking stopped the practice in FY2011, but Congress continued to provide special project appropriations to support Alaska Native Village and U.S.-Mexico border projects.

When the CWSRF program was created, Congress intended for CWSRF appropriations to be phased out by FY1995, marking a transition to full state and local financing for wastewater infrastructure projects.¹⁶ State CWSRF programs were to be sustained by loan repayments to the state fund after that date.¹⁷ The intention was that states would have greater flexibility to set priorities and administer funding in exchange for an end to federal aid. The intended shift of the CWSRF program to a full state responsibility has not occurred, and Congress has continued to provide CWSRF appropriations to support wastewater infrastructure activities. A number of factors may have played a role in these continued appropriations, including (1) pressure to extend federal funding due, in part, to wastewater infrastructure needs estimates (described above); and (2) varied perspectives regarding the role the federal government should play in supporting local wastewater infrastructure. For more context on the role the federal government has played in funding wastewater infrastructure—in comparison to state and local governments—see "History of Wastewater Infrastructure Funding."

Congress has revised the CWSRF several times to expand the types of assistance offered as well as the scope of eligible projects. Recent appropriations for the CWSRF and earmarked funds for wastewater projects are further detailed below.

¹⁵ Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500).

¹⁶ See, for example, Rep. Nowak, "Providing for Consideration of H.R. 1, Water Quality Act of 1987," House Debate on H.R. 1, *Congressional Record*, daily edition, vol. 133 (January 8, 1987), pp. H161-H216.

¹⁷ The 1987 CWA amendments authorized appropriations for the newly created CWSRF program through FY1994.

Eligible Recipients and Eligible Uses

In general, eligible loan recipients for CWSRF assistance are any municipal, intermunicipal, interstate, or state agency. Private utilities are not eligible to receive funds for construction of wastewater treatment works and most other eligible activities, but, in some cases, private entities are eligible to receive assistance for certain types of activities (e.g., decentralized wastewater treatment projects; projects to manage, reduce, or treat stormwater; or development of watershed management projects).

The list of eligible projects (in CWA Section 603)¹⁸ remained unchanged from the CWSRF creation until 2014. Until that time, projects or activities eligible for funding included those needed for constructing or upgrading (and planning and designing) publicly owned municipal wastewater treatment plans. These include construction or upgrading of secondary or advanced treatment plants; construction of new collector sewers, interceptor sewers, or storm sewers; and projects to correct existing problems of sewer system rehabilitation, infiltration/inflow of sewer lines, and combined sewer overflows. Operation and maintenance are not eligible activities.

In addition, the statutory list of eligible activities initially included nonpoint source management programs and estuary activities in approved State Nonpoint Management Programs and estuarine Comprehensive Conservation and Management Plans, respectively.¹⁹

The Water Resources Reform and Development Act of 2014 (WRRDA; P.L. 113-121) amended the initial list of eligible projects by adding several types of projects and activities, including

- replacement of decentralized treatment systems (e.g., septic tanks),²⁰
- energy efficiency improvements at treatment works,
- reuse and recycling of wastewater or stormwater, and
- security improvements at treatment works.

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.

In addition to the CWA Section 603 eligibility provisions, CWA Section 602 includes several requirements for states implementing the program.²¹ For example, Section 602 requires that all funds in the CWSRF resulting from federal capitalization grants are first to be used to "assure maintenance of progress ... toward compliance with enforceable deadlines, goals, and [CWA] requirements.²²

^{18 33} U.S.C. §1383.

¹⁹ For a detailed breakdown of SRF funding by category that is updated annually, see EPA, *Clean Water SRF Program Information, National Summary*, https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports.

 $^{^{20}}$ In a 2021 report to Congress, EPA concluded that decentralized systems are "an integral component of our nation's wastewater infrastructure and can protect public health and water quality if they are properly planned, sited, designed, installed, and maintained." See EPA, *Report to Congress on the Prevalence Throughout the U.S. of Low- and Moderate-Income Households Without Access to a Treatment Works and the Use by States of Assistance Under Section 603(c)(12) of the Federal Water Pollution Control Act, 2021,*

https://www.epa.gov/system/files/documents/2022-01/low-mod-income-without-treatment_report-to-congress.pdf. ²¹ 33 U.S.C. §1382.

^{22 22} U.S.C. 91302.

²² 33 U.S.C. §1382(b)(5).

Financing or Funding Mechanism

EPA grants (from federal appropriations) and state matching funds capitalize state CWSRF programs. These programs may provide the following general types of financial assistance:

- making loans;
- buying or refinancing existing local debt obligations;
- guaranteeing or purchasing insurance for local debt obligations;
- guaranteeing CWSRF debt obligations (i.e., to be used as security for leveraging the assets in the CWSRF); and
- providing loan guarantees for local government revolving funds.²³

Loans are made at or below market interest rates, including zero-interest loans, as determined by the state in negotiation with the applicant.

Although the CWSRF program is generally a loan program, states may provide "additional subsidization"—such as principal forgiveness, negative-interest loans, or a combination—to eligible entities that meet the state's affordability criteria and for particular projects, such as those that implement water or energy efficiency goals or mitigate stormwater runoff. The Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) amended the CWSRF statutory provisions to direct states to use at least 10% of their capitalization grants for additional subsidization under certain conditions.²⁴ The role of additional subsidization is discussed in more detail below.

History of Wastewater Infrastructure Funding

A comparison of the federal contribution of water infrastructure spending with the contributions from state and local governments provides historical context. According to a 2025 analysis from the Congressional Budget Office (CBO), state and local governments have contributed the vast majority of public funding for wastewater and drinking water infrastructure projects. **Figure 2** compares the inflation-adjusted capital spending on water infrastructure of state and local governments and the federal government. The figure indicates that in 2023, the most recent year for which data are available, the state and local share of such spending was 92%, while the federal share was 8%.

²³ 33 U.S.C. §1383(d).

²⁴ 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. Water Infrastructure Capital Spending, by Level of Government FY1957-FY2023

Source: Prepared by CRS. Data from Congressional Budget Office (CBO), *Public Spending on Transportation and Water Infrastructure, 1956 to 2023, 2025, Supplemental Tables, https://www.cbo.gov/publication/60874.*

Notes: Water infrastructure includes wastewater and drinking water infrastructure. The figure does not include spending on operation and maintenance activities, which are not eligible to receive federal funding. Federal spending in the figure includes the Environmental Protection Agency state revolving fund programs, as well as water infrastructure spending from programs administered by the U.S. Department of Agriculture and the Department of Housing and Urban Development (based on April 2020 correspondence with CBO). For details on CBO's methodology, see CBO, *Public Spending on Transportation and Water Infrastructure*, Appendix B, 2010, https://www.cbo.gov/publication/21902.

Figure 3 illustrates the history of EPA wastewater infrastructure appropriations (between FY1973 and FY2025) in both nominal dollars and inflation-adjusted (2023) dollars. The increase in FY2009 was due to a \$4.0 billion increase in supplemental funds under the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5). The increase in FY2022-FY2025 was due to the supplemental appropriations provided by IIJA, discussed below. As the figure indicates, federal funding (after adjusting for inflation) for wastewater infrastructure in the 1970s and 1980s was considerably greater than in more recent decades.



Figure 3. EPA Wastewater Infrastructure Appropriations, FY1973-FY2025

Nominal and Real (Inflation-Adjusted) 2023 Dollars

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

Notes: The figure includes appropriations for the Clean Water Act Title II grant program, the Clean Water State Revolving Fund program, special project funding, and community project funding/congressionally directed spending (often referred to as "earmarks"). The increase in FY2009 was due to a \$4.0 billion increase in supplemental funds under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The increase in FY2022-FY2025 was due to the supplemental appropriations provided by the Infrastructure Investment and Jobs Act (P.L. 117-58). "Real" or inflation-adjusted (2023) dollars calculated from Office of Management of Budget, Table 10.1, "Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2026." The deflator values used for FY2024 through FY2026 are estimates.

Figure 4 provides more details about appropriations for the CWSRF, which received its first appropriation in FY1989. Appropriations for the CWSRF program and other water infrastructure programs are provided within an EPA account currently called the State and Tribal Assistance Grants (STAG) account.

From FY2000 through FY2009, annual CWSRF appropriations averaged about \$1.1 billion in nominal dollars (i.e., not adjusted for inflation). ARRA provided \$4.0 billion (nominal) in FY2009 for the CWSRF, in addition to the regular FY2009 appropriations.²⁵ In nominal dollars, the annual appropriations for the CWSRF program increased after ARRA. Between FY2010 and FY2021, the annual appropriations averaged about \$1.6 billion (nominal) for the CWSRF.

In the 117th Congress, IIJA (Division J) provided five fiscal years of emergency supplemental appropriations for the CWSRF.²⁶ IIJA appropriations included annual funding between FY2022 and FY2026 totaling \$11.7 billion (nominal). IIJA also provided the CWSRF program with a total of \$1.0 billion (nominal) between FY2022 and FY2026 to address "emerging contaminants."

²⁵ See CRS Report R46464, *EPA Water Infrastructure Funding in the American Recovery and Reinvestment Act of 2009*, by Jonathan L. Ramseur and Elena H. Humphreys, for more details.

²⁶ See CRS Report R46892, *Infrastructure Investment and Jobs Act (IIJA): Drinking Water and Wastewater Infrastructure*, by Elena H. Humphreys and Jonathan L. Ramseur, for more details.

The Trump Administration proposed to substantially reduce the CWSRF appropriation in FY2026. The President's FY2026 budget proposal would provide \$155 million for the CWSRF program.²⁷

Figure 4. Clean Water State Revolving Fund (CWSRF) Appropriation, FY1989-FY2026



Nominal and Real (Inflation-Adjusted) 2023 Dollars

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 P.L. 111-5 and \$52.5 million in P.L. 116-20.

Notes: "CPF/CDS" denotes community project funding and congressionally directed spending, often referred to as "earmarks." "ARRA" denotes supplemental appropriations provided by the American Recovery and Reinvestment Act (P.L. 111-5). "IIJA" denotes the 2022 Infrastructure Investment and Jobs Act (P.L. 117-58). General Program or "GP" denotes supplemental appropriations provided to the CWSRF for the range of statutory eligibilities. "EC" (or emerging contaminants) denotes CWSRF supplemental appropriations dedicated to projects to address emerging contaminants. "Real" or inflation-adjusted (2023) dollars calculated from Office of Management of Budget, Table 10.1, "Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2026." The deflator values used for FY2024 through FY2026 are estimates. The funding levels for FY2026 may change, reflecting funding for the CWSRF through annual appropriations.

Community Project Funding/Congressionally Directed Spending

The FY2022, FY2023, and FY2024 annual appropriations acts included community project funding/congressionally directed spending (CPF/CDS), which some refer to as "earmarks." The

²⁷ Office of Management and Budget, "Environmental Protection Agency," in *Technical Supplement to the 2026 Budget: Appendix*, pp. 945-964, https://www.govinfo.gov/app/collection/budget/2026.

FY2025 appropriations, which were provided through a continuing resolution, did not include CPF/CDS.²⁸ For FY2026, the House and Senate appropriations committees began to collect CPF/CDS project requests from Members in April 2025.²⁹

CPF/CDS items support a range of objectives, including wastewater infrastructure. The recent CPF/CDS funding framework differs from prior funding approaches for direct water infrastructure grants.³⁰ In particular, from FY1989 to FY2010, appropriations acts provided an appropriation to the CWSRF and a separate appropriation for funds earmarked for water infrastructure projects. In the FY2022, FY2023, and FY2024 appropriations acts, the CWSRF and CPF/CDS funds are included in the same appropriation, with funding for CPF/CDS set aside from the CWSRF appropriation.

- The Consolidated Appropriations Act, 2022 (P.L. 117-103) sets aside for CPF/CDS 27% (\$443.6 million) of the total FY2022 CWSRF appropriation (\$1,639 million).
- The Consolidated Appropriations Act, 2023 (P.L. 117-328) sets aside for CPF/CDS 53% (\$863.1 million) of the total FY2023 CWSRF appropriation (\$1,639 million).
- The Consolidated Appropriations Act, 2024 (P.L. 118-42) sets aside for CPF/CDS 48% (\$787.7 million) of the total FY2024 CWSRF appropriation (\$1,639 million).

The effect of this reduction in SRF funding is distributed uniformly among state SRFs, as EPA uses a CWA formula to determine state allotments of CWSRF capitalization grants.³¹ The magnitude of the effect of shifting a portion of the SRF appropriations from being distributed via the SRFs to being distributed as CPF/CDS can be presented in several ways.³² For example, the effect can be assessed by comparing the different nominal funding amounts states received with the addition of CPF/CDS to a hypothetical scenario in which states received only CWSRF capitalization grants and CPF/CDS funding was not reserved. **Figure 5** presents this comparison. While some states received more funding due to CPF/CDS items, other states received less wastewater infrastructure funding from annual appropriations acts as a result of this practice.

²⁸ Full-Year Continuing Appropriations and Extensions Act, 2025 (P.L. 119-4). During the FY2025 appropriations process, the House and Senate appropriations committees collected CPF/CDS requests from Members, but these were not included in the continuing resolution for FY2025. For example, for the list of project requests compiled by the Senate Committee on Appropriations, see U.S. Senate Committee on Appropriations, "Congressionally Directed Spending Requests FY2025," July 7, 2024, https://www.appropriations.senate.gov/congressionally-directed-spending-requests-fy2025. For more information, see CRS Insight IN12524, *Wastewater and Drinking Water Infrastructure Program Funding Developments*, by Elena H. Humphreys and Jonathan L. Ramseur.

²⁹ For example, see House Committee on Appropriations, "FY26 Member Requests," https://appropriations.house.gov/ fy26-member-requests.

³⁰ These grants were often described as special project funding.

³¹ For more information, see CRS Report R47474, *Clean Water State Revolving Fund Allotment Formula: Background and Options*, by Jonathan L. Ramseur.

³² For a more detailed analysis, see CRS Report R48066, *The Role of Earmarks in SRF Appropriations in the 118th Congress*, by Elena H. Humphreys.



Figure 5. Community Project Funding and Congressionally Directed Spending

Effects on Clean Water State Revolving Fund Allotments in FY2024

Source: Amounts calculated by CRS from the joint explanatory statement accompanying the Consolidated Appropriations Act, 2024 (P.L. 118-42) and Clean Water Act formula found in 33 U.S.C. §1285(c)(3) as modified by the Environmental Protection Agency (EPA). This figure is modified from a figure included in CRS Report R48066, *The Role of Earmarks in SRF Appropriations in the 118th Congress*, by Elena H. Humphreys.

Notes: This figure identifies the change in available FY2024 wastewater infrastructure funds as a result of the reservation of funds for community project funding/congressionally directed spending (CPF/CDS) and distribution of CPF/CDS, compared with a hypothetical scenario in which CPF/CDS was not reserved. State abbreviations are listed. For territories, "AS" denotes American Samoa, "GU" denotes Guam, "MP" denotes Northern Mariana Islands, and "VI" denotes U.S. Virgin Islands. Prior to making state allotments, EPA reserves 2% of the CWSRF appropriation for grants to tribes for wastewater infrastructure projects, and EPA reserves 1.5% of the CWSRF appropriation for grants to AS, GU, MP, and VI for wastewater infrastructure projects.

Additional Subsidization

Since the establishment of the CWSRF in 1987, several acts have amended the CWA and its CWSRF provisions to increase flexibilities and/or add new requirements. Among the changes to the CWSRF program, several pertained to the use of *additional subsidization*. Additional subsidization may involve a range of financial mechanisms, including principal or other loan forgiveness; grants; negative interest loans; and buying, refinancing, or restructuring debt. The authority to provide additional subsidization has been the primary route that Congress has used to address water infrastructure affordability. The degree to which additional subsidization is required or authorized—thereby altering the ratio between loans and subsidization—has generated congressional and stakeholder attention over the past 15 years.

The use of additional subsidization alters the underlying framework of the CWSRF program. As additional subsidization provides funding or financing to recipients that is not repaid into the state's revolving fund account, the use of additional subsidization affects the amount of funding that is recycled into the account.

Appropriations Acts

The CWSRF program historically involved subsidized loans from the states to local entities. In 2009, ARRA provided an emergency supplemental appropriation to the CWSRF, requiring states

to use at least 50% of the ARRA funds for additional subsidization. Since ARRA's enactment, appropriations acts have required states to use minimum percentages of their allotted CWSRF grants to provide additional subsidization. Between FY2009 and FY2023, principal forgiveness accounted for almost 90% of the additional subsidization offered by states.³³

Enacted in 2022, IIJA supplemental appropriations (FY2022-FY2026) require states to use 49% of their SRF capitalization grant amount as 100% principal forgiveness or grants, or a combination of these. For the IIJA emergency supplemental appropriations for projects to address emerging contaminants, states are required to use 100% of their capitalization grants as principal forgiveness or grants.

CWA Amendments

In 2014, Congress amended the CWA, authorizing states to offer additional subsidization.³⁴ After this amendment, states have been able to use up to 30% of their annual capitalization grant to provide additional subsidization to eligible recipients.³⁵ IIJA also amended the CWA to require states to use, at minimum, 10% of their capitalization grants for additional subsidization.³⁶ In EPA memoranda from 2022 and 2023, the agency clarified its interpretation that the appropriations acts' additional subsidization percentages are "additive" to the additional subsidization statutory floor of 10% for the CWSRF.³⁷ Thus, states have had an additional subsidization floor of 20% since FY2022.

Figure 6 illustrates the degree to which states provided additional subsidization between FY2014 and FY2023. A year-by-year analysis of additional subsidization is challenging, because a state's CWSRF capitalization grant is available for obligation in the fiscal year in which EPA awards it and in the subsequent fiscal year.³⁸ It is uncertain how often and to what degree this occurs. Thus, the data displayed in this figure should be viewed with caution.

In the figure, the red line depicts the statutory additional subsidization ceiling of 30%. The blue line depicts the minimum percentage of additional subsidization (i.e., floor), which was 10% between FY2014 and FY2021 as required by appropriations acts, and 20% thereafter. The figure suggests that the states, in aggregate, reached the 30% ceiling in two fiscal years (FY2017 and FY2021). The figure also suggests that states, in aggregate, did not reach the additional subsidization floor in 2015. However, due to the two-year funding obligation window (described above), it is uncertain whether states, in aggregate, are exceeding the 20% floor or reaching the 30% ceiling in a particular year. For example, a state may have provided additional subsidization in FY2017 that was sourced from the state's FY2017 capitalization grant and its FY2016 capitalization grant. The underlying data do not indicate the specific source of federal funding

³³ Based on CRS analysis of data in EPA, CWSRF National Information Management System, https://www.epa.gov/ cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports.

³⁴ Water Resources Reform and Development Act of 2014 (P.L. 113-121), §5003.

³⁵ 33 U.S.C. §1383(i).

³⁶ P.L. 117-58, §50210.

³⁷ EPA, *FY 2022 DWSRF Base Allotment Availability*, May 2022, https://www.epa.gov/system/files/documents/2022-05/FY%202022%20DWSRF%20Base%20Allotment%20Availability.pdf. EPA, *FY 2022 CWSRF Base Allotment Availability*, May 2022, https://www.epa.gov/system/files/documents/2022-05/

FY%202022%20CWSRF%20Base%20Allotment%20Availability.pdf. EPA, *FY 2023 Clean Water State Revolving Fund Base Allotment Availability*, March 2023, https://www.epa.gov/system/files/documents/2023-03/fy2023-cwsrf-base-allotment.pdf. EPA, *FY 2023 Allotments for the Drinking Water State Revolving Fund Based on the Seventh Drinking Water Infrastructure Needs Survey and Assessment*, May 2023, https://www.epa.gov/system/files/documents/2023.04/Final_FY23%20DWSRF%20Allotment%20Memo%20and%20Attachments_April%202023.pdf. ³⁸ 33 U.S.C. §1384(c).

that supports states' use of additional subsidization. Although specific-year evaluations are uncertain, the figure illustrates that, in aggregate, states chose not to provide as much additional subsidization to recipients as allowed under the statute.



Figure 6. Use of Additional Subsidization in Clean Water State Revolving Fund Programs, FY2014-FY2023

Source: Prepared by CRS. Data from Clean Water State Revolving Fund (CWSRF) National Information Management System, https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports.

Notes: Clean Water Act Section 604(c) (33 U.S.C. §1384(c)) provides that CWSRF capitalization grants allotted to each state have two years of availability. Therefore, a state may provide assistance in one fiscal year with funding from a previous fiscal year. Accordingly, a state may be complying with a prior fiscal year's additional subsidization requirements in the fiscal year following the year of appropriation.

Other EPA Wastewater Funding Programs

In addition to the CWSRF program, EPA implements several other programs that provide funding to support wastewater infrastructure or support systems to apply for CWSRF assistance. These programs are discussed below and followed by a table that identifies recent appropriations for these programs.

Sewer Overflow and Stormwater Grant Program

In 2000, the Consolidated Appropriations Act, 2001 (P.L. 106-554) authorized EPA to establish a new grant program in the CWA to address overflows from municipal combined sewer systems and from municipal separate sanitary sewers ("wet weather" projects). At that time, Congress authorized annual appropriations of \$750 million for FY2002 and FY2003, but did not appropriate funding for the program until FY2020. AWIA (P.L. 115-270) amended the grant program by modifying the eligibility provisions to include stormwater infrastructure, among other changes. In addition, AWIA reauthorized appropriations for the grant program for \$225 million for FY2019 and FY2020. IIJA reauthorized appropriations for \$280 million annually for FY2022 through FY2026.

Under this program, EPA provides grants to states, which provide sub-awards to eligible entities. CWA Section 221 directs states to prioritize funding to financially distressed communities, among other conditions. The grants to states are to be allocated based on a formula prepared by EPA.³⁹ In November 2022, EPA announced the availability of funding and invited states to apply for grants to support eligible projects.⁴⁰

Training and Technical Assistance for Rural, Small, and Tribal Wastewater Systems

In 2018, AWIA added Section 104(b)(8) to the CWA authorizing EPA to make grants to qualified nonprofits to provide technical assistance to help rural, small, and tribal publicly owned treatment works and decentralized wastewater treatment systems to comply with the CWA and apply for financing from the CWSRF.⁴¹ For this purpose, AWIA authorized appropriations of \$25.0 million per year for FY2019 through FY2023. IIJA reauthorized appropriations of \$75.0 million per year for FY2022 through FY2026 to carry out grant programs in Section 104(b)(8), as well as Section 104(b)(3) and Section 104(g).

Water Infrastructure Finance and Innovation Act (WIFIA) Program

Congress established the WIFIA program in the Water Resources Reform and Development Act of 2014 (P.L. 113-121; 33 U.S.C. §§3901-3914). WIFIA authorizes EPA and the U.S. Army Corps of Engineers to provide credit assistance (e.g., secured loans) for a range of water infrastructure projects. EPA provides WIFIA loans directly to eligible recipients. WIFIA appropriations primarily cover long-term credit subsidy costs, which would cover the federal government's risk that the loan may not be repaid. EPA estimates that the average subsidy cost for WIFIA projects will be comparatively low. Thus, relative to its budget authority, WIFIA allows for a larger amount of total assistance. For example, EPA estimated that the FY2024 budget authority for WIFIA subsidy costs would be \$64.6 million of the \$72.3 million for the program and will allow EPA to lend approximately \$6.5 billion.⁴²

³⁹ EPA, "State Formula Allocations for Sewer Overflow and Stormwater Reuse Grants," 86 *Federal Register* 11287, February 24, 2021, https://www.federalregister.gov/documents/2021/02/24/2021-03756/state-formula-allocations-for-sewer-overflow-and-stormwater-reuse-grants.

⁴⁰ EPA, "EPA Announces \$52M in Grants for States to Support Clean Water, Flood Resilience, and Water Equity," press release, November 29, 2022, https://www.epa.gov/newsreleases/epa-announces-52m-grants-states-support-clean-water-flood-resilience-and-water-equity.

⁴¹ Codified at 33 U.S.C. §1254(b)(8)). For more information, see EPA, "Training and Technical Assistance (TA) Program for Rural, Small, and Tribal Wastewater Systems," May 30, 2025, https://www.epa.gov/small-and-rural-wastewater-systems/training-and-technical-assistance-ta-program-rural-small-and.

⁴² EPA, "Notice of Funding Availability for Credit Assistance Under the Water Infrastructure Finance and Innovation Act (WIFIA) Program," 89 *Federal Register* 73083, September 9, 2024.

Appropriations in Nominal Value in Millions of Dollars (Not Adjusted for Inflation)							
	U.S. Code	Appropriations					
Program		FY2020 (P.L. 116-94)	FY2021 (P.L. 116-260)	FY2022 (P.L. 117-103)	FY2023 (P.L. 117-328)	FY2024 (P.L. 118-42)	FY2025 (P.L. 119-4)
Water Infrastructure Finance and Innovation Act Program	33 U.S.C. §§3901-3914	\$60.0	\$65.0	\$69.5	\$75.6	\$72.3	\$72.3
Sewer Overflow and Stormwater Reuse Municipal Grants Program	33 U.S.C. §I 301	\$28.0	\$40.0	\$43.0	\$50.0	\$41.0	\$41.0
Training and Technical Assistance Program for Rural, Small, and Tribal Wastewater Systems	33 U.S.C. §1254(b)(8)	\$12.0	\$18.0	\$20.0	\$27.0	\$25.5	\$25.5

Table 2. Appropriations for Selected Wastewater Infrastructure Programs

Source: Prepared by CRS using annual appropriations acts.

Wastewater Infrastructure Affordability Issues

Studies have found that the costs of wastewater and drinking water services have "increased significantly" across the United States in recent years.⁴³ EPA states that a number of factors have played a role in these increased costs, including aging infrastructure and deferred maintenance, regulatory requirements (e.g., treatment standards), inflation, and supply chain disruptions.⁴⁴ Although Congress has provided increased funding levels in recent years—particularly supplemental appropriations in IIJA (discussed above)—needs for capital infrastructure improvements, as well as operations and maintenance costs, according to EPA, may be challenging for communities to support with "affordable" water rates.⁴⁵ As these needs and costs have increased, water utilities have raised rates and household bill payments have increased. Affordability concerns may increase if Congress adopts President Trump's budget proposal (discussed above) for FY2026.

Figure 7 illustrates the percentage increase in household payments for water and sewer services between 1998 and 2024. The figure compares these percentage increases to percentage increases—over the same time period—in the consumer price index (CPI) for all items (listed as "All Goods and Services" in the figure). The CPI is often used to measure inflation in the U.S. economy.⁴⁶ The figure indicates that household payments for water and sewer increased at roughly twice the rate of the CPI during this period. In addition, the figure illustrates the average and median wage increases over this time period. The relative increases in water and sewer service payments as compared to the wage data indicate that individuals are spending proportionally more of their income on household water and sewer services.

⁴³ EPA cites several studies in its 2024 report to Congress on affordability. See EPA, *Water Affordability Needs Assessment: Report to Congress*, December 2024, https://www.epa.gov/waterfinancecenter/water-affordability-needsassessment (hereinafter EPA 2024 Affordability Report).

⁴⁴ EPA 2024 Affordability Report, p. 4.

⁴⁵ EPA 2024 Affordability Report, p. 7.

⁴⁶ For more information, see CRS In Focus IF10477, *Introduction to U.S. Economy: Inflation*, by Lida R. Weinstock.



Figure 7. Household Drinking Water and Sewer Payments Versus Costs of Other Goods and Services

Source: Prepared by CRS and included in CRS Report R48271, *Paying for Drinking Water: Background and Issues for Congress*, by Elena H. Humphreys; based on analysis of Bureau of Labor Statistics (BLS) data on Consumer Price Index (CPI) for all urban consumers for the following series: CUUR0000SEHG01 and CUUR0000SA0. Data rebased to calendar year 1998. CRS analysis of Social Security Administration data for the series: national average wage index (AWI).

Notes: The CPI "all urban consumers" represents changes in prices of all goods and services purchased for consumption by urban households, which BLS states represents 90% of the U.S. population. BLS CPI for water sewer maintenance represents the changes in user payments for those services.

Wastewater and drinking water services are often combined on household water bills. One study estimates that wastewater services account for about 60% of the total costs on these combined bills.⁴⁷ In general, costs for wastewater services are based on household water consumption.⁴⁸

Recent studies indicate that the rates and payments are expected to increase. For example, a 2023 report from the National Association of Clean Water Agencies (NACWA) projected that wastewater service rates would increase annually from 4.5% to 5.6% between 2025 and 2028.⁴⁹ It is uncertain how these estimated increases would compare to CPI during these years.

The billing methods utilities use to implement these rate increases can affect affordability. EPA recommends that the pricing of water services cover the costs of providing service, for both operations and maintenance and capital expenses.⁵⁰ Water utility bills often comprise a fixed cost element and a cost based on water use (volumetric charge). A 2024 study found that in recent years water utilities have shifted their rate structure to collect a greater proportion of revenue

⁴⁷ Bluefield Research, "U.S. Municipal Utility Water Rates Index 2024: Drinking Water & Sewer," 2025, https://www.bluefieldresearch.com/.

 ⁴⁸ See, for example, D.C. Water, "Rates and Fees," https://www.dcwater.com/customer-center/rates-and-fees.
 ⁴⁹ National Association of Clean Water Agencies (NACWA), "Cost of Clean Water Index," 2023,

https://www.nacwa.org/docs/default-source/resources—public/nacwa-index/2023-nacwa-cost-of-clean-waterindex.pdf?sfvrsn=e0f9c261_2.

⁵⁰ EPA, Guidebook of Financial Tools: Paying for Environmental Systems, 2008, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100179D.PDF?Dockey=P100179D.PDF.

from customers based on fixed charges. The study found that this shift in billing structure disproportionately affects lower-income households.⁵¹

A 2024 survey of selected water utilities by the Department of Health and Human Services (HHS) found that—on average—20% of U.S. households are in debt to their water utility.⁵² These situations can result in broader impacts, forcing households to reduce spending on other expenses, including food, health care, and education. In addition, households with unpaid bills may have their services disconnected, which may result in households relying on nonhygienic practices regarding household water and wastewater needs.⁵³

In addition, water utilities rely on ratepayer revenue to support the system's operation, among other activities. When customer accounts are in arrears, utilities may make up the revenue difference through other means or defer infrastructure repairs and improvements.

Some systems offer programs to assist low-income customers with water bill payments. Among these, systems may offer individualized payment plans or customer assistance programs (CAPs).⁵⁴ However, some states prohibit the use of rate revenues to fund CAPs. Others face potential legal challenges in doing so. Facing revenue shortfalls and increased costs, some water systems have disconnected service to certain delinquent accounts. The practice of disconnecting service for nonpayment is more commonly associated with tap water service rather than wastewater disposal services.

EPA's 2024 Affordability Report: Highlights

Section 50108 of IIJA directed EPA to submit a report to Congress that examines the degree to which water service providers serve a "disproportionate percentage ... of households with qualifying need."⁵⁵ EPA published this report in December 2024, stating that its report provides an understanding of the water affordability burden in the United States among households and utilities.

Previous studies have used a number of definitions for water affordability. In its study, EPA used two affordability threshold values: 3% and 4.5% of household income spent on drinking water and wastewater bills combined. In other words, if payments for household water services accounted for more than 3% or 4.5% of total monthly household income, these payments were considered unaffordable.⁵⁶ Based on these thresholds, EPA estimated the following:

⁵¹ Manuel P. Teodoro and Ryan Thiele, "Water and Sewer Price and Affordability Trends in the United States, 2017–2023," *Journal of the American Water Works Association*, 2024, https://doi.org/10.1002/awwa.2315.

⁵² Department of Health and Human Services, Office of Community Services, *Understanding Water Affordability Across Contexts: LIHWAP Water Utility Affordability Survey Report*, 2024, https://acf.gov/sites/default/files/documents/ocs/water-survey.pdf.

⁵³ EPA 2024 Affordability Report, p. 9.

⁵⁴ For more information, see EPA, "Compendium of Drinking Water and Wastewater Customer Assistance Programs," https://www.epa.gov/waterfinancecenter/compendium-drinking-water-and-wastewater-customer-assistance-programs.

⁵⁵ Codified in 42 U.S.C. §300j-19a note.

⁵⁶ In its report, EPA stated that the 4.5% threshold is used in a number of other studies (and is comparable to affordability metrics in other contexts), and the 3% threshold was used in a widely cited 2023 study: Stacey Isaac Berahzer et al., *Low-Income Water Customer Assistance Program Assessment*, 2023, prepared for the American Water Works Association, Association of Metropolitan Water Agencies, National Association of Clean Water Companies, and Water Environment Federation, https://www.amwa.net/system/files/linked-files/liwcap—final-report-4-24-23.pdf.

- between 12.1 million and 19.2 million U.S. households (or 9.2% to 14.6%) lack affordable access to water services;⁵⁷
- between 11% and 20% of U.S. water service customers are in arrears with their bills;
- the total annual cost of unaffordable water service bills is between \$5.1 billion and \$8.8 billion.

EPA noted several challenges and limitations the agency (and other study authors) encountered when assessing water affordability. Such assessments generally require water rates data, census data, and a means to match these data geographically. EPA pointed out that a comprehensive database of national water rates does not exist, and the available data from utilities are presented with inconsistent formats and scopes, making comparisons across utilities challenging.

In its 2024 Affordability Report, EPA matched water utility rate data with 59% of the U.S. population. For areas with no data (e.g., areas using decentralized systems), EPA used average rates from the surrounding region. Based on observed data and extrapolations for areas without available data, EPA prepared the map shown in **Figure 8**, which illustrates the percentage of households with unaffordable water bills (using the 4.5% threshold) by U.S. county. As the figure indicates, the percentage of households with unaffordable water service bills ranged by county from zero percent to 30%-45%.

Figure 8. EPA Estimate of Percentage of Household with Unaffordable Water Bills



By County, Using 4.5% Threshold of Household Income

Source: Reproduced from Figure 10 in Environmental Protection Agency (EPA), Water Affordability Needs Assessment: Report to Congress, December 2024, https://www.epa.gov/waterfinancecenter/water-affordability-needs-assessment.

 $^{^{57}}$ EPA found this estimate to be consistent with other studies, with estimates ranging from 5.8% to 17.1% of households.

Notes: As EPA discusses in its 2024 report, the above figure includes water rate data associated with 59% of the U.S. population. EPA used those data to extrapolate water rate data to areas serving the remaining 41% of the U.S. population.

EPA's 2024 Affordability Report: Recommendations

IIJA directed EPA to provide recommendations in its 2024 Affordability Report that would address affordability issues. EPA provided a number of recommendations that fell into three broad categories, discussed below.

Establish a Permanent Federal Water Assistance Program

IIJA Section 50109 directed EPA—within two years of enactment of IIJA—to establish a pilot grant program to provide household drinking water and/or wastewater rate assistance based on the results of the study performed under IIJA Section 50108. This program would be similar to the Low Income Household Water Assistance Program established during the COVID-19 pandemic (see text box below). Section 50109 did not include an authorization of appropriations for this grant program, and Congress has not provided an appropriation to carry out this directive. In its 2024 Affordability Report, EPA estimated that the cost to fund the pilot program would range between \$115 million and \$185 million per year. EPA stated that this pilot program could be the first step in creating a more comprehensive and permanent program.

Examples of Federal Assistance in Other Contexts

EPA noted that the federal government provides household assistance in other contexts, including the following examples:

- The Supplemental Nutrition Assistance Program (SNAP)—formerly called the Food Stamp Program—is
 designed primarily to increase the food purchasing power of eligible low-income households to help them buy
 a nutritionally adequate low-cost diet.⁵⁸ In FY2023, SNAP provided food benefits to approximately 42 million
 low-income individuals to supplement their grocery budgets.⁵⁹
- The Low Income Home Energy Assistance Program (LIHEAP) makes annual grants to states, tribes, and territories to operate home energy assistance programs for low-income households.⁶⁰ In FY2023, Congress provided approximately \$6.2 billion for LIHEAP, which supported an estimated 5.9 million households.⁶¹
- The Low Income Household Water Assistance Program (LIHWAP) was established in response to the COVID-19 pandemic and provided funding to states, tribes, and territories to operate drinking water and wastewater assistance programs. The program assisted low-income households with rates charged for drinking water and wastewater as well as account arrearages. The program received appropriations in the Consolidated Appropriations Act, 2021 (P.L. 116-260) and the American Rescue Plan Act of 2021 (P.L. 117-2), which appropriated \$638 million and \$500 million, respectively.⁶² LIHWAP was administered by the Department of Health and Human Services (HHS) and followed many of the program rules associated with the LIHEAP Program. Through the second quarter of 2024, HHS reported that LIHWAP had assisted 1.7 million households.⁶³

⁵⁸ For more information, see CRS Report R42505, *Supplemental Nutrition Assistance Program (SNAP): A Primer on Eligibility and Benefits*, by Randy Alison Aussenberg and Gene Falk.

⁵⁹ U.S. Department of Agriculture, Economic Research Service, "Supplemental Nutrition Assistance Program (SNAP)—Key Statistics and Research," January 6, 2025, https://www.ers.usda.gov/topics/food-nutrition-assistance/ supplemental-nutrition-assistance-program-snap/key-statistics-and-research/.

⁶⁰ For more information, see CRS Report RL31865, *LIHEAP: Program and Funding*, by Libby Perl.

⁶¹ Department of Health and Human Services, Office of Community Services, "LIHEAP Fact Sheet," https://acf.gov/ ocs/fact-sheet/liheap-fact-sheet.

⁶² See Division H, Title V, §533, of P.L. 116-260, and §2912 of P.L. 117-2.

⁶³ See the LIHWAP Data Dashboard Quarterly Reports, https://lihwap-hhs-acf.opendata.arcgis.com/pages/quarterly-snapshot.

In addition, EPA suggested policymakers consider a household water efficiency and plumbing repair grant program. EPA argued that such a program could complement a water assistance program by addressing water infrastructure inefficiencies in households (e.g., leaks and inefficient appliances).

Increase Awareness Regarding Existing Federal Programs and Information Sharing

EPA contended that many communities are unaware of the existing federal funding programs (e.g., CWSRF program, discussed above) and other resources that could address affordability concerns. EPA suggested this situation could be improved through increased outreach activities and idea sharing among stakeholders. EPA specifically highlighted customer assistance programs (CAPs) and the need for utilities to share lessons learned from their CAP experiences.

Reduce Infrastructure Capital and Operating Costs Through Regionalization

EPA offered a number of recommendations to help reduce wastewater infrastructure costs. For example, EPA suggested that policymakers look for ways to encourage regionalization and consolidation among service providers. The CWA Section 104(b)(8) grant program could be used to support this objective. As discussed above, this program provides funding to qualified nonprofits to provide technical assistance to help rural, small, and tribal publicly owned treatment works and decentralized wastewater treatment systems to comply with the CWA and apply for financing. In addition, policymakers could consider using set-asides in appropriations acts to support these objectives, as has been done to support specific project types—"green infrastructure," water efficiency, or energy efficiency—through the CWSRF.⁶⁴

Other Policy Considerations

Policymakers may also consider modifying existing provisions in the CWA to address affordability. Several options exist to help achieve this goal. One option would be for Congress to amend the CWSRF state allotment formula.⁶⁵ An adjustment to the CWSRF allotment formula that more closely aligns with current estimated needs and population would likely also have some effect on affordability. For example, if states with a greater proportion of needs receive a larger percentage of federal funds, the utilities in these states may not need to raise water service rates as high as they might raise them under the existing allotment structure.

When Congress created the CWSRF program in 1987, Congress may have based the state allotments on some combination of wastewater infrastructure needs and population, among other potential factors.⁶⁶ These allotment percentages have effectively been in place since the program's establishment in 1987.⁶⁷ Since 1987, EPA has produced seven wastewater infrastructure needs

⁶⁴ These particular project types are not defined in the CWA CWSRF provisions. EPA issued guidance providing definitions and examples of eligible project types. See EPA, "Green Project Reserve Guidance for the Clean Water State Revolving Fund (CWSRF)," https://www.epa.gov/cwsrf/green-project-reserve-guidance-clean-water-state-revolving-fund-cwsrf.

⁶⁵ For more details, see CRS Report R47474, *Clean Water State Revolving Fund Allotment Formula: Background and Options*, by Jonathan L. Ramseur.

⁶⁶ The legislative history does not explicitly describe these factors or how they are weighted in the allotments.

⁶⁷ 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 (and part of the CWSRF allotment), became sovereign states by adopting (continued...)

surveys. EPA published its most recent survey in 2024. 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 (P.L. 113-121) directed EPA to report to Congress whether the allotment adequately addressed water quality needs. EPA published this report in 2016.⁶⁸ 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 populations. A 2024 GAO report reached similar conclusions. In the report, GAO stated, "Congress should consider revising the allotment formula for the [CWSRF] program to clearly align with the program's goals and requiring EPA to periodically calculate allotment percentages using the most recent data."⁶⁹

Both the 2016 EPA report and the 2024 GAO report highlighted concerns regarding the incomplete data in the wastewater needs estimates. Because of these concerns, some may argue that factors other than needs estimates should be included for CWSRF allocation. Both EPA and GAO offered allotment formula alternatives that included additional factors, such as population, economic burden, and water quality.

The CWSRF program's allotment formula has been an issue of debate for a number of years. Considerations of states' potential allotment decreases or increases bear heavily on discussions of policy choices reflected in alternative formulations. If Members consider the allotment formula in the 119th Congress, they may assess allotment in the context of recent developments in CWSRF appropriations. For instance, the supplemental appropriations in IIJA increased CWSRF appropriations in FY2022 through FY2026 by approximately 100% compared to regular appropriations in previous years.⁷⁰ The increased appropriations may help alleviate the concerns noted above, because the total appropriations available for state allotment are greater due to the IIJA appropriations. It is uncertain whether the IIJA appropriations would have the same effect in FY2026. As noted above, the Trump Administration proposed to substantially reduce the CWSRF appropriation in FY2026.

Another consideration regarding the allotment formula and its effects on affordability is the IIJA supplemental funds' additional subsidization requirements. In contrast to regular CWSRF appropriations, almost half (49%) of the IIJA supplemental funds are to be used for additional subsidization. If the additional subsidization funding from IIJA is allotted under the current formula, this subsidization may not be applied as effectively as possible (i.e., not reaching the recipients that need it the most).

Another option for Congress to consider is altering the additional subsidization provisions to enhance their effect on affordability. In CWA Section 603, states must apply the additional subsidization—with a statutory floor of 10% and ceiling of 30%—to support one of the following objectives: (1) affordability concerns or (2) specific project types, including water efficiency and

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 funding under the act. EPA made an administrative adjustment to allotment totals for all other recipients for FY2000 and onward to reflect this change.

⁶⁸ 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.

⁶⁹ GAO, Clean Water: Revolving Fund Grant Formula Could Better Reflect Infrastructure Needs, and EPA Could Improve Needs Estimate, July 2024, https://www.gao.gov/products/gao-24-106251.

⁷⁰ If regular CWSRF appropriations remain consistent in FY2025 and FY2026, the supplemental appropriations in IIJA would represent 100% increases in those years as well.

energy efficiency projects.⁷¹ The construction of this provision gives states the discretion to apply 100% of their additional subsidization allotment toward water efficiency and/or energy efficiency projects, rather than affordability. States are not required to use any of their annual allotments for affordability, if they choose to support these specific project types.

In addition, the CWSRF set-aside (typically 10%) in recent appropriations acts specifies that the additional subsidization go to "eligible recipients." The scope of this set-aside is broader than the scope of additional subsidization in CWA Section 603. As with the scope of additional subsidization in Section 603, states may use these funds to address affordability issues, but states are not required to do so. For example, states could choose to provide additional subsidization to any eligible recipient for any eligible project, regardless of the underlying financial characteristics of the recipient. Congress could consider altering the scope of these set-asides to direct more of the additional subsidization to recipients or communities facing affordability challenges.

Further, the regular appropriations in FY2022, FY2023, and FY2024 included CPF/CDS items. As discussed above, these funds effectively decrease 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, their distribution is not subject to the CWA allotment formula. The CPF/CDS funds, which require a 20% match from recipients, are more akin to the CWSRF additional subsidization (i.e., grants rather than loans). If Congress continues to provide CPF/CDS funding, Congress could consider requiring that some portion of these funds be used to address affordability concerns. For example, the appropriations committees could require that Members' CPF/CDS requests include some percentage of projects that would support lower-income communities.

Author Information

Jonathan L. Ramseur Specialist in Environmental Policy

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^{71 33} U.S.C. §1383(i).