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Wastewater Infrastructure: Overview, Funding, and Legislative Developments

Updated May 22, 2018

Congressional Research Service
https://crsreports.congress.gov
R44963

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

The collection and treatment of wastewater remains among the most important public health interventions in human history and has contributed to a significant decrease in waterborne diseases during the past century. Nevertheless, waste discharges from municipal sewage treatment plants into rivers and streams, lakes, and estuaries and coastal waters remain a significant source of water quality problems throughout the country.

The Clean Water Act (CWA) establishes performance levels to be attained by municipal sewage treatment plants in order to prevent the discharge of harmful wastes into surface waters. The act also provides financial assistance so that communities can construct treatment facilities and related equipment to comply with the law. Although approximately $104 billion in CWA assistance has been provided since 1972, funding needs for wastewater infrastructure remain high. The Environmental Protection Agency (EPA) estimates that the nation's wastewater treatment facilities will need $271 billion over the next 20 years to meet the CWA's water quality objectives.

The CWA authorizes the principal federal program to support wastewater treatment plant construction and related eligible activities. Congress established the CWA Title II construction grants program in 1972, significantly enhancing what had previously been a modest grant program. In 1987, Congress amended the CWA and created the Clean Water State Revolving Fund (CWSRF) program. This program represented a major shift in how the nation finances wastewater treatment needs. In contrast to the Title II construction grants program, which provided grants directly to localities, CWSRFs are loan programs. States use their CWSRFs to provide several types of loan assistance to communities, including project construction loans made at or below market interest rates, refinancing of local debt obligations, providing loan guarantees, and purchasing insurance.

In 2014, Congress revised the CWSRF program by providing additional loan subsidies (including forgiveness of principal and negative interest loans) in certain instances (P.L. 113-121). In addition, the 2014 act increased the types of projects eligible for CWSRF assistance.

In both FY2016 and FY2017, Congress provided $1.394 billion for the CWSRF program. However, funding for the program increased by 22% in FY2018. The Consolidated Appropriations Act, 2018 (P.L. 115-141) provided $1.694 billion to the CWSRF program.

In addition, Congress established the Water Infrastructure Finance and Innovation Act (WIFIA) program in 2014 (P.L. 113-121). WIFIA provides direct loans for an array of water infrastructure projects, including CWSRF-eligible projects. EPA issued its first WIFIA loan in April 2018. In FY2018, Congress appropriated $63 million to EPA for the WIFIA program (roughly double the FY2017 appropriation). EPA estimates that this funding will provide approximately $5.5 billion in credit assistance.

Policymakers have continued to propose changes to wastewater infrastructure funding programs. Issues debated in connection with these proposals include extending CWSRF assistance to help states and cities meet the estimated funding needs, modifying the program to assist small and economically disadvantaged communities, and enhancing the CWSRF program to address a number of water quality priorities beyond traditional treatment plant construction—particularly the management of wet weather pollutant runoff from numerous sources, which is the leading cause of stream and lake impairment nationally.

Contents

Introduction 1
Background 1
Estimated Funding Needs 2
Funding for Wastewater Treatment Activities 2
Clean Water State Revolving Fund Program 4
Water Infrastructure Finance and Innovation Act program 6
Other Federal Assistance Programs 6
Department of Agriculture 6
Department of Housing and Urban Development 7
Department of Commerce 7
How Localities Pay for Wastewater Infrastructure 7
Legislative Activity 8
Historical Activity 8
Legislative Proposals in the 115th Congress 9

Figures

Figure 1. EPA Wastewater Infrastructure Annual Appropriations 4

Tables

Table 1. Wastewater Infrastructure Legislative Proposals in the 115th Congress 10

Contacts

Author Contact Information 16

Introduction

Waste discharges from municipal sewage treatment plants into inland and coastal waters are a significant source of water quality problems throughout the country.[1] Pollutants associated with municipal discharges include nutrients (which can stimulate growth of algae that can deplete dissolved oxygen or produce harmful toxins), bacteria and other pathogens (which may impair drinking water supplies and recreation uses), and metals and toxic chemicals from industrial and commercial activities and households.

The collection and treatment of wastewater remains among the most important public health interventions in human history and has contributed to a significant decrease in waterborne diseases during the past century.[2] Funding these systems continues to be of interest to federal, state, and local officials and the general public.

Background

The Clean Water Act (CWA)[3] establishes performance levels to be attained by municipal sewage treatment plants in order to prevent the discharge of harmful quantities of waste into surface waters and to ensure that residual sewage sludge meets environmental quality standards. It requires secondary treatment of sewage (equivalent to removing 85% of raw wastes),[4] or treatment more stringent than secondary, where needed to achieve water quality standards necessary for recreational and other uses of a river, stream, or lake.

Although the nation has made considerable progress in controlling and reducing certain kinds of chemical pollution of rivers since the 1972 CWA amendments,[5] the U.S. Environmental Protection Agency (EPA) and others argue that continued infrastructure improvements are necessary to maintain and expand these achievements.[6]

The total population served by sewage treatment plants that provide a minimum of secondary treatment increased from 85 million in 1972 to 234 million in 2012,[7] representing 74% of the U.S. population at that time.[8] About four million people are served by facilities that provide less

[1] Pursuant to the Clean Water Act, Section 305, states submit biennial reports to the Environmental Protection Agency (EPA) assessing the water quality of their surface waters. See EPA, *National Summary of State Information*, "Probable Sources of Impairments in Assessed Rivers and Streams," https://ofmpub.epa.gov/waters10/attains_nation_cy.control.

[2] See, for example, National Research Council, *Indicators for Waterborne Pathogens*, 2004, https://www.nap.edu/catalog/11010/indicators-for-waterborne-pathogens.

[3] The statutory name is the Federal Water Pollution Control Act, as amended, codified at 33 U.S.C. §1251 *et seq*. Originally enacted in 1948, the act was broadly rewritten by the 1972 amendments (P.L. 92-500) that gave the act its current shape. For more information, see CRS Report RL30030, *Clean Water Act: A Summary of the Law*, by Laura Gatz.

[4] 33 U.S.C. §1311 and §1314(d). Pursuant to these provisions, EPA issued regulations with specific secondary treatment requirements in 1973, including the 85% removal performance standard (38 *Federal Register* 22298, August 17, 1973). These regulations are codified in 40 C.F.R. Part 133.

[5] See, for example, EPA, *Primer for Municipal Wastewater Treatment Systems*, 2004, figure on page 6.

[6] See, for example, *Clean Watersheds Needs Survey 2012*, Report to Congress, 2016, https://www.epa.gov/cwns; and American Society of Civil Engineers, *Infrastructure Report Card*, Wastewater, 2017, https://www.infrastructurereportcard.org/cat-item/wastewater/.

[7] See Table 3 in EPA, *Clean Watersheds Needs Survey 2012*, Report to Congress, 2016.

[8] At the end of 2012, the U.S. population was approximately 315 million. U.S. Census population clock, https://www.census.gov/popclock/.

than secondary treatment, but, according to EPA, these facilities have CWA conditional waivers from the secondary treatment requirement.[9] About 21% of households are served by on-site septic systems, not by centralized municipal treatment facilities.[10]

Despite improvements, other water quality problems related to municipalities remain to be addressed. A key concern is "wet weather" pollution: overflows from combined sewers (sewers that carry sanitary and industrial wastewater, groundwater infiltration, and stormwater runoff that may discharge untreated wastes into streams) and sanitary sewers (sewers that carry only sanitary waste). Untreated discharges from these sewers, which typically occur during rainfall events, can cause serious public health and environmental problems, yet costs to control wet weather problems are high in many cases. In addition, toxic wastes discharged from industries and households to sewage treatment plants cause water quality impairments, operational upsets, and contamination of sewage sludge.

Estimated Funding Needs

Although Congress has provided more than $104 billion in CWA assistance since 1972, funding needs for wastewater infrastructure remain high. According to the most recent estimate by EPA and the states,[11] the nation's wastewater treatment facilities will need $271 billion over the next 20 years to meet the CWA's water quality objectives. This estimate includes

- $197 billion for wastewater treatment and collection systems, which represent 73% of all needs;[12]
- $48 billion for combined sewer overflow corrections;
- $19 billion for stormwater management; and
- $6 billion to build systems to distribute recycled water.

These estimates do not include potential costs, largely unknown, to upgrade physical protection of wastewater facilities against possible terrorist attacks that could threaten water infrastructure systems, an issue of significant interest since September 11, 2001.

Needs for small communities represent about 12% of the total. The largest needs in small communities are for new conveyance systems (e.g., pipes), secondary treatment, system repair, and advanced treatment. Five states—New York, Pennsylvania, Kentucky, Texas, and Alabama—accounted for 30% of the small community needs.

Funding for Wastewater Treatment Activities

In addition to prescribing municipal treatment requirements, the CWA authorizes the principal federal program to support wastewater treatment plant construction and related eligible activities. Congress established this program in the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), significantly enhancing what had previously been a modest grant program. Since then, Congress has appropriated approximately $104 billion to support compliance with the

[9] CWA Section 301(h) authorizes EPA (with the concurrence of a state) to modify the secondary treatment requirements under certain conditions.

[10] U.S. Census Bureau, *American Housing Survey (AHS)*, Plumbing, Water, and Sewage Disposal Table, 2015, https://www.census.gov/programs-surveys/ahs.html.

[11] EPA, *Clean Watersheds Needs Survey 2012*, Report to Congress, 2016, https://www.epa.gov/cwns.

[12] This includes $102 billion for wastewater treatment (38%) and $96 billion for conveyance systems, which includes new systems and repairs for older systems (35%).

act and achievement of the overall objectives of the act: restoring and maintaining the chemical, physical, and biological integrity of the nation's waters.

Title II of P.L. 92-500 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 act. The formula (which has been modified several times since 1972) was based on states' financial needs for treatment plant construction and population. States used their allotments to make grants to cities 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.

Amendments enacted in 1987 (P.L. 100-4) initiated a new program to support, or capitalize, Clean Water State Revolving Funds (CWSRFs). States continue to receive federal grants, but now they provide a 20% match and use the combined funds to make loans to communities. Monies used for construction are repaid to states to create a "revolving" source of assistance for other communities.

In FY1989 and FY1990, Congress provided appropriations for both the Title II and Title VI programs. The CWSRF program fully replaced the Title II program in FY1991. However, during the transition from Title II to Title VI, 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 to congressional earmarking stopped the practice in FY2011. Special project appropriations since that time have supported Alaska Native Village and U.S.-Mexico Border projects.[13]

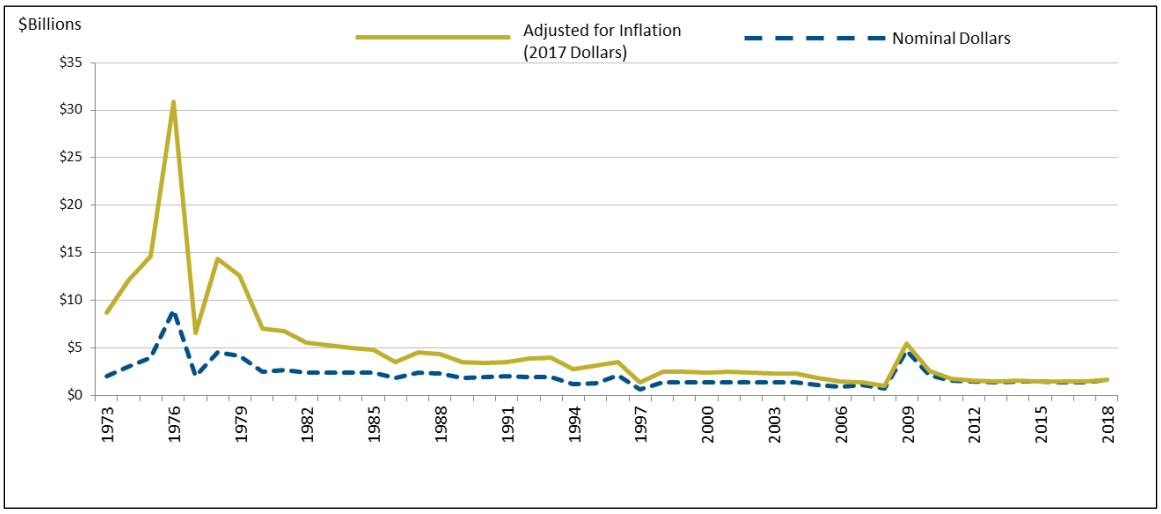
Federal contributions to CWSRFs were intended to assist a transition to full state and local financing by FY1995. CWSRFs were to be sustained through repayment of loans made from the fund after that date. The intention was that states would have greater flexibility to set priorities and administer funding in exchange for an end to federal aid after 1994, when the original CWA authorizations expired. However, although most states believe that the CWSRF is working well today, early funding and administrative problems plus remaining funding needs (discussed below) delayed the anticipated shift to full state responsibility. Congress has continued to appropriate funds to assist wastewater construction activities.

Figure 1 illustrates the history of EPA wastewater infrastructure appropriations in both nominal dollars and constant (2018) dollars. The increase in FY2009 is due to a $4.0 billion increase in supplemental funds under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). As the figure indicates, the funding level remained relatively stable during the past seven fiscal years. In both FY2016 and FY2017, Congress provided $1.394 billion for the CWSRF program. However, funding for the CWSRF program increased by about 22% in FY2018. The Consolidated Appropriations Act, 2018 (P.L. 115-141), provided $1.694 billion to the CWSRF program.

[13] For more details, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramseur and Mary Tiemann.

Figure 1. EPA Wastewater Infrastructure Annual Appropriations

Adjusted ($2017) 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 $7.22 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: 1940–2023," https://www.whitehouse.gov/omb/budget/Historicals.

Notes: For more details, see CRS Report 96-647, *Water Infrastructure Financing: History of EPA Appropriations*, by Jonathan L. Ramseur and Mary Tiemann.

Clean Water State Revolving Fund Program

The CWSRF program represented a major shift in how the nation finances wastewater treatment needs. In contrast to the Title II construction grants program, which provided grants directly to localities, CWSRFs are loan programs. States use their CWSRFs to provide several types of financial assistance to communities, including project construction loans made at or below market interest rates, refinancing of local debt obligations, providing loan guarantees, and purchasing insurance. States may also provide additional loan subsidies (including forgiveness of principal and negative interest loans) in certain instances. Loans are to be repaid to the CWSRF within 30 years beginning within one year after project completion, and the locality must dedicate a revenue stream (from user fees or other sources) to repay the loan to the state.

States must agree to use CWSRF monies first to ensure that wastewater treatment facilities are in compliance with deadlines, goals, and requirements of the act. After meeting this "first use" requirement, states may also use the funds to support other types of water quality programs specified in the law, such as those dealing with nonpoint source pollution and protection of estuaries. The CWA identifies a number of types of projects and activities as eligible for CWSRF assistance. The Water Resources Reform and Development Act of 2014 (WRRDA, P.L. 113-121) amended the list by adding several projects and activities.[14]

[14] P.L. 113-121, Title V, Subtitle A.

The current list includes[15]

- wastewater treatment plant construction,
- stormwater treatment and management,
- 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.

States must also agree to ensure that communities meet several specifications (such as requiring that locally prevailing wages be paid for wastewater treatment plant construction pursuant to the Davis-Bacon Act).[16] In addition, WRRDA amended the CWA to require that CWSRF recipients must use American-made iron and steel products in their projects.[17]

As under the previous Title II program, decisions on which projects will receive assistance are made by states using a priority ranking system that typically considers the severity of local water pollution problems, among other factors. States also evaluate financial considerations of the loan agreement (interest rate, repayment schedule, the recipient's dedicated source of repayment) under the CWSRF program.

All states have established the legal and procedural mechanisms to administer the loan program and are eligible to receive CWSRF capitalization grants. Some with prior experience using similar financing programs moved quickly. Others had difficulty in making a transition from the previous grants program to one that requires greater financial management expertise for all concerned. More than half of the states currently leverage their funds by using federal capital grants and state matching funds as collateral to borrow in the public bond market for purposes of 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.[18]

Small communities and states with large rural populations have had challenges with the CWSRF funding programs. Many of these communities have limited financial, technical, and legal resources and may encounter difficulties in qualifying for and repaying CWSRF loans. These communities often lack an industrial tax base and thus face the prospect of very high per capita user fees to repay a loan for the full capital cost of sewage treatment projects. Compared with larger cities, many are unable to benefit from economies of scale, which can affect project costs.[19] However, since 1989, 67% of all loans and other assistance (comprising 22% of total funds loaned) have gone to assist towns and cities with populations of less than 10,000.[20]

[15] 33 U.S.C. §1383(c).

[16] 33 U.S.C. §1382(b)(6), which references §1372.

[17] P.L. 113-121, Section 5004; 33 U.S.C. §1388.

[18] 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.

[19] See, for example, Government Accountability Office, *Federal Agencies Provide Funding but Could Increase Coordination to Help Communities*, 2015.

[20] EPA website on the Clean Water SRF, "Did You Know," https://www.epa.gov/cwsrf (accessed May 15, 2018).

Water Infrastructure Finance and Innovation Act program

The Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) program provides another source of financial assistance for water infrastructure. Congress established the WIFIA program in WRRDA.[21] The act, among other provisions, authorizes EPA to provide credit assistance (e.g., secured/direct loans or loan guarantees)[22] for a range of wastewater and drinking water projects. Project costs must be $20 million or larger to be eligible for credit assistance. In rural areas (defined as populations of 25,000 or less), project costs must be $5 million or more. To fund this five-year pilot program, Congress authorized to be appropriated a total of $1.75 billion from FY2015 through FY2019.

In 2016, Congress appropriated the first funds to cover the subsidy cost of the program,[23] providing $20 million to EPA to begin making loans, and allowed the agency to use up to $3 million of the total for administrative purposes. In May 2017, Congress provided an additional $8 million for EPA to apply toward loan subsidy costs and an additional $2 million for EPA's administrative expenses.[24]

EPA began accepting loan applications for its WIFIA program in January 2017. EPA received 43 letters of interest from prospective borrowers in the agency's first round of funding solicitation. In aggregate, the prospective borrowers requested $6 billion in WIFIA loans.[25] In July 2017, EPA selected 12 projects to continue the application process. The loan amounts requested for the projects ranged from $22 million to $625 million for a total of $2.3 billion.[26]

For FY2018, the Consolidated Appropriations Act, 2018 (P.L. 115-141), provided $63 million for the WIFIA program (including $8 million for administrative costs). EPA announced a second round of WIFIA funding on April 4, 2018. EPA estimated that its budget authority ($55 million) would provide approximately $5.5 billion in credit assistance.

Other Federal Assistance Programs[27]

In addition to the water infrastructure assistance programs discussed above, which are administered by EPA, other federal agencies implement broader programs that may provide assistance for wastewater infrastructure projects.

Department of Agriculture

The U.S. Department of Agriculture (USDA) operates grant and loan programs for drinking water supply and wastewater facilities in rural areas, defined as areas of not more than 10,000 persons.

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[21] P.L. 113-121, Title V, Subtitle C. For more information see CRS Report R43315, *Water Infrastructure Financing: The Water Infrastructure Finance and Innovation Act (WIFIA) Program*, by Jonathan L. Ramseur and Mary Tiemann.

[22] Although WIFIA credit assistance may include direct loans and loan guarantees, EPA stated that based on experience from comparable government credit programs, the agency does not anticipate immediate demand for loan guarantee instruments. See EPA, *WIFIA Program Handbook*, 2017, https://www.epa.gov/wifia.

[23] The Further Continuing and Security Assistance Appropriations Act, 2017 (P.L. 114-254).

[24] The Consolidated and Further Continuing Appropriations Act, 2017 (P.L. 115-31).

[25] See EPA's website for updated information, https://www.epa.gov/wifia.

[26] EPA, WIFIA Financing Requests, FY2017 Letters of Interest, https://www.epa.gov/wifia/wifia-financing-requests.

[27] For additional information, see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*, coordinated by Jonathan L. Ramseur.

For FY2018, Congress appropriated $895 million for USDA's rural water and waste disposal grant program and approximately $1.2 billion for direct loan authority.[28]

Department of Housing and Urban Development

The Department of Housing and Urban Development administers the Community Development Block Grant (CDBG) program. For FY2018, Congress provided $3.3 billion for these funds. Water and waste disposal projects compete with many other CDBG-funded public activities and have accounted for approximately 10% of total grant disbursements in recent years.[29]

Department of Commerce

The Department of Commerce's Economic Development Administration (EDA) provides project grants for construction of public facilities—including, but not limited to, water and sewer systems—as part of approved overall economic development programs in areas of lagging economic growth. For FY2018, the public works and economic development program is funded at $118 million.

How Localities Pay for Wastewater Infrastructure

The federal government directly funds only a small portion of the nation's annual wastewater treatment capital investment. State and local governments provide the majority of needed funds. Local governments have primary responsibility for wastewater treatment: They own and operate approximately 15,000 treatment plants nationwide.[30] Construction of these facilities has historically been financed with federal grants, state grants to supplement federal aid, and revenue from broad-based local taxes (property tax, retail sales tax, or, in some cases, local income tax). Where grants are unavailable—and especially since CWSRFs were established—local governments often seek financing by issuing bonds and then levying fees or charges on users of public services to repay the bonds in order to cover all or a portion of local capital costs. Almost all such projects are debt-financed (not financed on a pay-as-you-go basis from ongoing revenues to the utility). The principal financing tool that local governments use is issuance of tax-exempt municipal bonds. The vast majority of U.S. water utilities rely on municipal bonds and other debt to some degree to finance capital investments.[31]

Shifting the CWA aid program from categorical grants to the CWSRF loan program in 1990 had the practical effect of making localities ultimately responsible for nearly 100% of project costs rather than less than 50% of costs.[32] This has occurred concurrently with other financing

[28] Title III of P.L. 115-141 provided $400 million for grants and $1.2 billion in loan authority. Title VII (Section 780) provided an additional $500 million for the grant and loan program "of which not to exceed $495,000,000 shall be for grants."

[29] U.S. Department of Housing and Urban Development, "National Expenditure Reports, FY2001-FY2017," https://www.hudexchange.info/programs/cdbg/cdbg-expenditure-reports/.

[30] Based on data collected in 2012. See EPA, *Clean Watersheds Needs Survey 2012*, Report to Congress, 2016.

[31] See testimony of Aurel Arndt, American Water Works Association, in U.S. Congress, Senate Committee on Environment and Public Works, "The Federal Role in Keeping Water and Wastewater Infrastructure Affordable," 114th Cong., 2nd sess., April 7, 2016. According to a 2013 study, 48 states used tax-exempt financing to fund water infrastructure projects in 2012. See National Association of Clean Water Agencies and Association of Metropolitan Water Agencies, "The Impacts of Altering Tax-Exempt Municipal Bond Financing on Public Drinking Water and Wastewater Systems," 2013.

[32] Over the history of the construction grants program, federal grants generally covered from 55% to 75% of project costs (CWA §202).

challenges—including the need to fund other environmental services, such as drinking water and solid waste management—and increased operating costs. (New facilities with more complex treatment processes are more costly to operate.) Options that localities face, if intergovernmental aid is not available, include raising additional local funds (through bond issuance, increased user fees, developer charges, or general or dedicated taxes), reallocating funds from other local programs, or failing to comply with federal standards. Each option carries with it certain practical, legal, and political problems.

Legislative Activity

Historical Activity

Authorizations of appropriations for CWSRF capitalization grants expired in FY1994, making this an issue of congressional interest. Appropriations have continued, as shown in **Figure 1**. In the 104th Congress, the House passed a comprehensive reauthorization bill (H.R. 961), which included CWSRF provisions to address problems that have arisen since 1987, including assistance for small and disadvantaged communities and expansion of projects and activities eligible for CWSRF assistance. However, no legislation was enacted because of controversies over other parts of the bill.

One ongoing focus has been on projects needed to control wet weather water pollution (i.e., overflows from combined and separate stormwater sewer systems). The 106th Congress authorized $1.5 billion of CWA grant funding specifically for wet weather sewerage projects (in P.L. 106-554), because under the CWSRF program, wet weather projects compete with other types of eligible projects for available funds. However, authorization for these wet weather project grants expired in FY2003 and has not been renewed. No funds were appropriated.

In several Congresses since the 107th, House and Senate committees have approved bills to extend the act's CWSRF program and increase authorization of appropriations for CWSRF capitalization grants, but no legislation has been enacted until recently. Issues debated in connection with these bills included extending CWSRF assistance to help states and cities meet the estimated funding needs, modifying the program to assist small and economically disadvantaged communities, and enhancing the CWSRF program to address a number of water quality priorities beyond traditional treatment plant construction—particularly the management of wet weather pollutant runoff from numerous sources, which is the leading cause of stream and lake impairment nationally.

The 113th Congress enacted considerable changes to the CWSRF provisions in 2014 (P.L. 113-121). These amendments addressed several issues, including extending loan repayment terms from 20 years to 30 years, expanding the list of CWSRF-eligible projects, increasing assistance to Indian tribes, and imposing "Buy America" (iron and steel) requirements on CWSRF recipients. The act also added a new provision that allows CWSRF grants to be used for "forgiveness of principal" and "negative interest loans" under certain conditions.

The 2014 amendments did not address other long-standing or controversial issues, such as authorization of appropriations for CWSRF capitalization grants (which expired in FY1994), state-by-state allocation of capitalization grants,[33] and applicability of prevailing wage requirements under the Davis-Bacon Act (which currently apply to use of CWSRF monies).

[33] CWSRF appropriations are allotted among the states based on a statutory allotment formula, not the results of needs

As discussed above, the 2014 legislation also included provisions authorizing the WIFIA program.

In the 114th Congress, the Senate passed the Water Resources Development Act (S. 2848), which included several provisions involving wastewater funding. For the most part, these provisions were not included in the final version of this legislation, which Congress enacted in December 2016 (Water Infrastructure and Improvements for the Nation Act, P.L. 114-322).[34]

Legislative Proposals in the 115th Congress

Although interest in meeting the nation's water infrastructure needs is strong and likely to continue, proposals to provide financial assistance to local communities will compete with other objectives, including deficit reduction. It is uncertain how infrastructure programs will fare in these debates.

Legislative proposals introduced in the 115th Congress that include wastewater infrastructure related provisions are identified in **Table 1** below.[35]

surveys. This issue was raised during debate on WRRDA 2014. In P.L. 113-121, Congress did not change the formula but did direct EPA to prepare and submit a report to Congress analyzing implications of basing allotment of funds among the states based on the results of needs surveys and other factors. See 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.

[34] For further details, see CRS In Focus IF10471, *WRDA Legislation in the 114th Congress: Clean Water Act and Infrastructure Financing Provisions in S. 2848 and WIIN*, by Claudia Copeland.

[35] This list may not be exhaustive.

Table 1. Wastewater Infrastructure Legislative Proposals in the 115th Congress

Listed Chronologically with Identical Bills Grouped Together

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
H.R. 465 January 13, 2017	Gibbs	Water Quality Improvement Act of 2017		Codifies an integrated plan and permit approach into the CWA, directs EPA to carry out a pilot program to work with at least 15 communities desiring to implement an integrated CWA compliance plan, and requires EPA to update its 1997 combined sewer overflow affordability guidance document. Includes provisions that may alter the existing CWA framework.
S. 181 January 20, 2017	Brown			Directs the Government Accountability Office (GAO) to publish a report determining whether a domestic content preference requirement (e.g., iron, steel, and manufactured products) applies to identified federal public works and infrastructure programs, including the CWSRF. Prohibits federal funds or credit assistance for a program that lacks a domestic content preference.
S. 518 March 2, 2017	Wicker	Small and Rural Community Clean Water Technical Assistance Act	Reported by the Committee on Environment and Public Works on May 17, 2017 (S.Rept. 115-71)	Authorizes EPA to issue grants to qualified nonprofit entities to provide technical assistance to owners and operators of "small" and "medium" wastewater treatment facilities.
H.R. 5030 February 15, 2018	Harper	Small and Rural Community Clean Water Technical Assistance Act		
S. 692 March 21, 2017	Fischer	Water Infrastructure Flexibility Act	Passed Senate on October 5, 2017; reported by the Committee on Environment and Public Works on May 25, 2017 (S.Rept. 115-87)	Codifies an integrated plan and permit approach into the CWA. Establishes an Office of the Municipal Ombudsman to provide assistance to municipalities and requires EPA to update its 1997 combined several overflow affordability guidance document. Includes provisions that may alter the existing CWA permitting and compliance framework.
H.R. 1971 April 7, 2017	Smucker	Water Infrastructure Flexibility Act		
H.R. 2355 May 4, 2017	Latta	Water Infrastructure Flexibility Act		

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
H.R. 1647 March 24, 2017	Blumenauer	Water Infrastructure Trust Fund Act of 2017		Directs the Secretary of the Treasury to establish a voluntary product labeling system informing consumers that the manufacturer, producer, or other stakeholder is participating in the Water Infrastructure Investment Trust Fund and contributing to clean water. Instructs Secretary to provide a label for a fee of 3 cents per unit. Funds would be made available only when the CWSRF appropriation is not less than the average of the five preceding fiscal years. Funds made available for a fiscal year would be split equally between the clean water and drinking water SRF programs.
H.R. 1673 April 11, 2017	Conyers	Water Affordability, Transparency, Equity, and Reliability Act of 2017		Establishes a trust fund with funds going to EPA to support clean water and drinking water SRFs and activities and to USDA for household water well systems. Directs EPA to report on water affordability nationwide, discriminatory practices of water and sewer service providers, and water system regionalization. Requires states to use at least 50% of their capitalization grants to provide additional subsidization to disadvantaged communities. Requires states to permit recipients of CWSRF assistance to enter into project labor agreements under the National Labor Relations Act.
S. 1137 May 16, 2017	Cardin	Clean Safe Reliable Water Infrastructure Act		Reauthorizes combined sewer overflow grants under CWA Section 221.

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
H.R. 2510 May 18, 2017	DeFazio	Water Quality Protection and Job Creation Act of 2017		Amends the CWA to authorize EPA to issue grants to nonprofit entities to provide technical assistance to rural, small, and tribal municipalities regarding wastewater financing and related issues. Reauthorizes appropriations for the pollution control grant program. Authorizes appropriations for the watershed pilot program. Amends appropriation authorization for the nonpoint source management program. Amends the CWSRF grant agreement section to require states to use at least 15% of their CWSRF grants to provide assistance to municipalities of fewer than 10,000 individuals that meet affordability criteria. Amends CWSRF project eligibility to allow states to provide a limited amount of grants to (1) treatment works in small (less than 10,000) communities and (2) treatment works for energy and water efficiency activities. Amends the priority list provisions to, among other things, allow for the inclusion of nonpoint source projects. Reauthorizes appropriations for the CWSRF program. Reauthorizes appropriations for the sewer overflow grant program.
H.R. 3009 June 22, 2017	Duncan	Sustainable Water Infrastructure Investment Act of 2017		Amends the tax code to provide that the volume cap for private activity bonds shall not apply to bonds for sewage (and drinking water) facilities.
H.R. 4209 November 1, 2017	Larson	America Wins Act		Establishes a carbon tax on fossil fuels. The revenues would support a variety of objectives. In particular, $6 billion would be allotted annually to support wastewater and drinking water infrastructure.
S. 2346 January 25, 2018	Booker			Establishes a grant program (administered by EPA and the Secretary of the Army) for water utilities to provide funding for job training and apprenticeship programs in the water infrastructure sector.
S. 2364 January 30, 2018	Boozman	Securing Required Funding for Water Infrastructure Now Act		Amends WIFIA by authorizing EPA to provide financial assistance (e.g., secured loans) to SRF programs to

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
H.R. 4902 January 30, 2018	Katko	Securing Required Funding for Water Infrastructure Now Act		support eligible wastewater and drinking water projects. Although this is currently authorized under WIFIA, the new WIFIA section would authorize EPA to provide secured loans at subsidized interest rates for certain states, including states that received less than 2% of the SRF funds in the most recent year or states in which the President declared a major disaster in 2017 through the enactment date. Funding for the subsidized loans would be capped. Unlike other WIFIA assistance, the federal assistance under this section would be able to support 100% of project costs, and application fees would be waived. No funding would be available if the SRF program appropriation is less than the amount provided in FY2018.
S. 2727 April 23, 2018	Gillibrand	Protecting Infrastructure and Promoting the Economy Act		Establishes an EPA grant program to provide direct funding for wastewater and drinking water infrastructure projects. Projects include those eligible in the SRF programs.
H.R. 5596 April 24, 2018	Carbajal	Water Infrastructure Resiliency and Sustainability Act of 201		Establishes an EPA grant program to provide funding to owners or operators of water systems (including decentralized wastewater systems) to increase the resiliency or adaptability of the systems. Private recipients must have public sponsorship to receive funding.

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
H.R. 5609 April 25, 2018	Ellison	Water Affordability, Transparency, Equity, and Reliability Act of 2018		Establishes a new trust fund to support EPA and USDA water infrastructure programs, particularly the SRF programs. The fund would be financed with revenues generated by an increase in the corporate rate from 21% to 24.5%. (In 2017, P.L. 115-97 decreased the rate from 35% to 21%.) Directs EPA to conduct a study on affordability and effectiveness of SRF program funding, among other issues. Amends the CWA to authorize EPA to make grants to nonprofit organizations to provide technical assistance and training to rural and small municipalities. Establishes an EPA grant program for repairing or upgrading decentralized systems (e.g., septic tanks). Amends the CWSRF provisions so the (20%) state match would apply to FY2016 funding levels going forward. Prohibits CWSRF funds from supporting a new community unless used for decentralized wastewater systems. Alters the CWSRF eligibility categories to allow state or local government to purchase a privately owned treatment system. Increases the minimum subsidization in Section 1383(i) from 30% to 50%.
S. 2771 April 26, 2018	Booker	Residential Decentralized Wastewater System Improvement Act		Establishes an EPA program to provide grants to nonprofit entities. These entities provide subgrants (not to exceed $20,000) to low-income households for construction, refurbishing, and servicing of decentralized wastewater systems. Grants may be used to connect to a public wastewater system if deemed more cost effective by the nonprofit entity.
S. 2772 April 26, 2018	Booker			Amends the USDA Rural Utilities Service wastewater and drinking water grant and loan program.

Bill Number - Introduced Date	Primary Sponsor	Short Title (If Provided)	Committee or Floor Action	Key Wastewater Provisions
S. 2800 May 8, 2018	Barrasso	America's Water Infrastructure Act of 2018		Directs EPA to establish a stormwater funding taskforce to study and prepare recommendations regarding stormwater funding issues. Reauthorizes the WIFIA program. Directs EPA to carry out a pilot program (subject to appropriations) on Indian tribe lands to implement drinking water or wastewater projects. Authorizes EPA to issue grants to qualified nonprofit entities to provide technical assistance to owners and operators of "small" and "medium" wastewater treatment facilities. Codifies an integrated plan and permit approach into the CWA. Establishes an Office of the Municipal Ombudsman to provide assistance to municipalities and requires EPA to update its 1997 combined several overflow affordability guidance document. Includes provisions that may alter the existing CWA permitting and compliance framework. Instructs EPA to promote the use of green infrastructure. Directs EPA to disseminate information regarding effectiveness of alternative wastewater systems, including decentralized systems. For wastewater projects serving populations less than 2,500, an entity receiving SRF, WIFIA, or USDA funding must certify that it has considered decentralized systems as an alternative. Establishes a grant program (administered by EPA and the Secretary of the Army) for water utilities to provide funding for job training and apprenticeship programs in water infrastructure sector. Directs GAO to conduct a study on ways to create flexibility under WIFIA for small, rural, disadvantaged, and tribal communities

Source: Prepared by CRS. The above list of bills may not be exhaustive.

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Acknowledgments

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