

# Drinking Water State Revolving Fund (DWSRF): Program Overview and Issues

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## **Summary**

The Safe Drinking Water Act (SDWA) is the federal authority for regulating contaminants in public water supplies. It includes the Drinking Water State Revolving Fund (DWSRF) program, established in 1996 to help public water systems finance infrastructure projects needed to comply with federal drinking water regulations and to meet the SDWA's health objectives. Under this program, states receive annual capitalization grants to provide financial assistance (primarily subsidized loans) to public water systems for drinking water projects and other specified activities. Between FY1997 and FY2015, Congress had appropriated approximately \$20 billion, and more than 12,400 projects had received assistance through the program.

The latest Environmental Protection Agency (EPA) survey of capital improvement needs indicates that public water systems need to invest \$384.2 billion on infrastructure improvements over 20 years to ensure the provision of safe tap water. EPA reports that, although all of the identified projects promote the public health objectives of the SDWA, just \$42.0 billion (10.9%) of reported needs are attributable to SDWA compliance. A study by the American Water Works Association projects that restoring aging infrastructure and expanding water systems to keep up with population growth would require a nationwide investment of at least \$1 trillion through 2035.

Key program issues include (1) the gap between estimated needs and funding, (2) the growing cost of complying with SDWA standards (particularly for small communities), (3) the ability of small or disadvantaged communities to afford DWSRF financing, and (4) the broader need for cities to maintain, upgrade, and expand infrastructure unrelated to SDWA compliance. Several overarching policy questions are under debate, including "What is the appropriate federal role in providing financial assistance for local water infrastructure projects?" and "What other funding mechanisms could supplement or replace a program reliant on annual appropriations?"

Several measures in the 113<sup>th</sup> Congress proposed alternative approaches for financing water infrastructure. P.L. 113-121 included the Water Infrastructure Finance and Innovation Act (WIFIA), which authorized a five-year pilot loan guarantee program to promote increased development of, and private investment in, large water infrastructure projects. The conferees noted that the pilot program is intended to complement, not replace, the drinking water SRF program and the similar Clean Water Act SRF program for wastewater infrastructure.

For FY2016, the President requested \$1.19 billion for the DWSRF program, and Congress provided \$863.2 million (P.L. 114-113). For FY2017, the President has requested \$1.02 billion for the program. The budget request includes an additional \$20.0 million for EPA to begin providing loan guarantees for water infrastructure projects under WIFIA.

The drinking water crisis in Flint, MI, has drawn attention to the state of the nation's water infrastructure and the challenges many communities face in addressing infrastructure needs. An array of bills have been introduced in the 114<sup>th</sup> Congress to increase funding authority for and make revisions to the DWSRF program; establish new funding sources through grants, a trust fund, and other means; and revise the tax code to promote private sector investment in water infrastructure. S. 2848, the Water Resources Development Act (WRDA) of 2016, and S. 2821 incorporate many of these bills, including proposals to provide grants and other assistance to address lead contamination, help communities comply with SDWA, promote lead testing in school drinking water, establish a water infrastructure trust fund, and provide DWSRF and other assistance to Flint, MI (as would H.R. 4479 and S. 2579). The House WRDA bill, H.R. 5303, would authorize appropriations for the U.S. Army Corps of Engineers to provide assistance to certain communities in states subject to water-system-related presidential emergency declarations.

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#### Introduction

The quality of water delivered by public water systems has been regulated at the federal level since enactment of the 1974 Safe Drinking Water Act (SDWA). Since then, the Environmental Protection Agency (EPA) has issued regulations for more than 90 contaminants, and all states (except Wyoming) have assumed primary responsibility for administering the federal drinking water program and overseeing public water system compliance. Congress last broadly amended the law in 1996 (P.L. 104-182) in response to criticism that the statute had too little flexibility, too many unfunded mandates, and an arduous but unfocused regulatory schedule.

Among the key provisions, the 1996 amendments authorized a Drinking Water State Revolving Fund (DWSRF) program to help public water systems finance improvements needed to comply with federal drinking water regulations and to address the most serious risks to human health. The law authorizes EPA to make grants to states each year to capitalize a state revolving loan fund. Each state must match 20% of its grant and develop intended use plans each year indicating how the allotted funds will be used. States are authorized to use their DWSRF funding to provide financial assistance (primarily subsidized loans) to eligible public water systems for expenditures that EPA has determined will facilitate SDWA compliance or significantly further the act's health protection objectives. The federal grants and state match—combined with funds from loan repayments, leveraged bonds, and other sources—are intended to generate an ongoing source of water infrastructure funding over time. The DWSRF program is patterned after the Clean Water Act State Revolving Fund (CWSRF) program for financing municipal wastewater treatment projects that Congress authorized in 1987 to replace a construction grants program.<sup>2</sup>

Projects eligible for DWSRF assistance include installation and replacement of treatment facilities, distribution systems, and certain storage facilities. Projects to replace aging infrastructure are eligible if they are needed to maintain compliance or to further public health protection goals. Projects to consolidate water supplies and to enhance water system security may also be eligible. DWSRF funds may not be used to pay for operation and maintenance activities or for projects needed primarily to accommodate growth.

Public water systems eligible to receive DWSRF assistance include some 52,000 community water systems (whether publicly or privately owned) and 21,400 not-for-profit noncommunity water systems.<sup>3</sup> States generally may not provide DWSRF assistance to systems that lack the capacity to ensure compliance with the act or that are in significant noncompliance with SDWA requirements, unless these systems meet certain conditions to return to compliance. Systems owned by federal agencies are not eligible. Although the law authorizes assistance to privately owned community water systems, some states have laws or policies that preclude privately owned utilities from receiving DWSRF assistance.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> SDWA §1452, State revolving loan funds; 42 U.S.C. §300j-12.

<sup>&</sup>lt;sup>2</sup> See CRS Report 96-647, Water Infrastructure Financing: History of EPA Appropriations, by (name redacted)

<sup>&</sup>lt;sup>3</sup> A community water system is one that serves at least 15 service connections used by year-round residents or that regularly serves at least 25 year-round residents. Noncommunity water systems regularly provide water to people but not year-round (e.g., schools and workplaces with their own wells).

<sup>&</sup>lt;sup>4</sup> Some states have legislative or regulatory restrictions on providing DWSRF assistance to private systems. According to EPA, some states have made a policy decision to restrict assistance to private systems because of concerns about endangering the tax-exempt status of bonds issued to provide the state match. In 2003, EPA reported that 21 states had provided DWSRF assistance to private systems, 12 states had restricted assistance to private systems, and 17 states did not have restrictions but had not yet provided assistance to private systems. States restricting assistance to private systems include Alabama, Arkansas, Colorado, Georgia, Kansas, Louisiana, Mississippi, Nebraska, North Carolina, (continued...)

#### **DWSRF Allotments and Set-Asides**

The law directs EPA to allot DWSRF funds among the states based on the results of the most recent quadrennial needs survey (discussed under "Drinking Water Infrastructure Needs"), except that each state and the District of Columbia must receive at least 1% of available funds. <sup>5</sup> The law further directs that not more than 0.33% of the total appropriation must be made available for grants to the Virgin Islands, the Commonwealth of the Northern Mariana Islands, American Samoa, and Guam, although Congress has increased this amount to 1.5% in appropriations acts.<sup>6</sup>

#### **EPA Reserves**

Before distributing funds among the states, EPA reserves 2% of the appropriated amounts for grants to Indian tribes and Alaska Native villages for water infrastructure projects. For FY2016, EPA set aside \$20.0 million for these grants. The SDWA further directs EPA to set aside from the annual DWSRF appropriation \$2.0 million to pay for monitoring of unregulated contaminants in small and medium systems. Additionally, EPA is authorized to reserve annually up to \$30.0 million to reimburse states for operator training and certification costs if separate funding is not provided under Section 1419 of the SDWA: EPA reserved the full amount for several years but reserved none after FY2003, as state training programs had matured. To provide technical assistance to small systems, EPA may reserve up to 2%, with a \$15.0 million cap; however, Congress has appropriated funding for this activity under Section 1442(e), and EPA has not set aside DWSRF funds for this purpose.<sup>9</sup>

(...continued)

Oklahoma, Tennessee, and Wyoming. Source: U.S. Environmental Protection Agency (EPA), The Drinking Water State Revolving Fund Program: Financing America's Drinking Water from the Source to the Tap, Report to Congress, May 2003, pp. 36-37, http://www.epa.gov/ogwdw/dwsrf/pdfs/dwsrf\_congressreport-main.pdf.

<sup>&</sup>lt;sup>5</sup> SDWA §1452(a)(1)(D); 42 U.S.C. §300j-12(a)(1)(D). State-by-state allotments and set-asides for FY1997 through FY2014 are available at EPA's DWSRF website, https://www.epa.gov/drinkingwatersrf/annual-allotment-federalfunds-states-tribes-and-territories. For FY2015 and FY2016 allotments, see EPA, FY2017 EPA Budget in Brief, p. 99, https://www.epa.gov/sites/production/files/2016-02/documents/fy17-budget-in-brief.pdf.

<sup>&</sup>lt;sup>6</sup> SDWA Section 1452(j) [42 U.S.C. §300j-12(j)] provides that the total amount of grants under this section shall not exceed 0.33% of the appropriated amount. For FY2010, Congress authorized EPA to reserve up to 1.5% of the appropriated funds for territories (P.L. 111-88); this authority has continued through subsequent appropriations.

<sup>&</sup>lt;sup>7</sup> Under SDWA Section 1452(i) [42 U.S.C. §300j-12(i)], EPA may use 1.5% of the amounts appropriated annually to make grants to Indian tribes and Alaska Native villages. Since FY2010 (Department of the Interior, Environment, and Related Agencies Appropriations, 2010 [P.L. 111-88]), Congress has authorized EPA to reserve up to 2.0% of the appropriated funds for Indian tribes and Alaska Native villages. This authority was included in P.L. 112-74 and has continued through the terms and conditions of subsequent appropriations.

<sup>&</sup>lt;sup>8</sup> SDWA Section 1445 (42 U.S.C. §300j-4) directs EPA to administer a monitoring program for unregulated contaminants to facilitate the collection of occurrence data for contaminants that are not regulated but are suspected to be present in public water supplies. Every five years, EPA must publish a list of no more than 30 unregulated contaminants to be monitored by public water systems. All systems serving more than 10,000 people and a sample of smaller systems must monitor for the contaminants. EPA is required to cover the costs associated with monitoring for systems serving from 25 to 10,000 persons. EPA proposed the fourth Unregulated Contaminant Monitoring Rule in December 2015. For more information, see EPA, "Unregulated Contaminant Monitoring Program," http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/.

<sup>&</sup>lt;sup>9</sup> SDWA Section 1452(q) [42 U.S.C. §300j-12(q)] authorized EPA to reserve up to 2% of funds appropriated for the DWSRF program for each of FY1997 through FY2003 to carry out Section 1442(e). The Administration has not requested money for these small system technical assistance activities, nor has EPA used the SRF reserve authority to fund them. Rather, Congress has provided funding for these purposes in recent appropriations acts. See CRS Report R44208, Environmental Protection Agency (EPA): FY2016 Appropriations, by (name redacted) and (name red acted) , under the heading National Priorities and "Earmarks." Enacted December 11, 2015, the Grassroots Rural and (continued...)

#### **State Set-Asides and Requirements**

The SDWA also includes several set-asides and directives that apply to the states. These provisions offer states flexibility in tailoring their individual DWSRF programs to address state priorities. They also demonstrate the emphasis that the 1996 amendments placed on enhancing compliance, especially among smaller systems. The act requires states to make available at least 15% of their annual allotment for loan assistance to systems that serve 10,000 or fewer persons to the extent that the funds can be obligated to eligible projects.

The act also allows states to use up to 30% of their DWSRF capitalization grants to provide additional assistance, such as forgiveness of loan principal or negative interest rate loans, to help disadvantaged communities (as determined by the state).<sup>10</sup>

Among other optional set-aside provisions, states may reserve as much as 4% of their annual capitalization grants to cover the costs of administering the DWSRF program and an additional portion to help pay the costs of other SDWA mandates. Specifically, states may set aside as much as 10% for a combination of the following:

- Public water system supervision programs,
- Technical assistance through source water protection programs,
- State capacity development strategies, and
- Operator certification programs.

To use DWSRF funds for the above purposes, states must match expenditures with an equal amount of state funds. States may use an additional 2% of funds to provide technical assistance to systems that serve 10,000 or fewer persons.

States also have the option of using as much as 15% for a combination of the following:

- Loans for the acquisition of land or conservation easements,
- Loans to implement voluntary source water protection measures,
- Technical and financial assistance to water systems as part of a capacity development strategy, and
- Expenditures from the fund for wellhead protection programs.

Expenditures may not exceed 10% for any one of these activities. Other SDWA provisions include separate funding authority for several of these activities. For example, wellhead protection provisions, Section 1428, authorized appropriations for the program through FY2003. Congress has generally not provided separate appropriations for these activities.

To further promote public water system compliance, the 1996 amendments added capacity development and operator certification requirements. The law required EPA to withhold part of the DWSRF grant from any state that did not meet these mandates. Section 1420 required states to establish capacity development programs that include (1) legal authority or other means to ensure that new systems have the technical, financial, and managerial capacity to meet SDWA requirements and (2) a strategy to assist existing systems that are experiencing difficulties in

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<sup>(...</sup>continued)

Small Community Water Systems Assistance Act (P.L. 114-98) amended Section 1442(e) to expand the technical assistance program and reauthorize appropriations through FY2020.

<sup>&</sup>lt;sup>10</sup> SDWA Section 1452(d); 42 U.S.C. §300j-12(d). Recent appropriations acts have required states to provide additional subsidization. (See discussion under "Congressional Actions.")

coming into compliance.<sup>11</sup> States were also required to adopt programs for training and certifying operators of community and non-transient non-community water systems.

Congress designed the DWSRF program to give states implementation flexibility. Additionally, Congress provided states flexibility in setting priorities between the DWSRF and Clean Water Act SRF (CWSRF) programs to accommodate the divergent drinking water and wastewater needs and priorities among the states. Section 302(a) of the 1996 SDWA amendments authorized states to transfer as much as 33% of the annual DWSRF allotment to the CWSRF or an equivalent amount from the CWSRF to the DWSRF. The act authorized these transfers through FY2001. In 2000, EPA recommended that Congress continue to authorize transfers between the SRF programs to give states flexibility to address their most pressing water infrastructure needs. Several annual appropriations acts had authorized states to continue to transfer as much as 33% of funds between the two programs, and in P.L. 109-54, Congress made this authority permanent.<sup>12</sup>

# **DWSRF Program Appropriations**

In the 1996 SDWA amendments, Congress established the DWSRF program and authorized program appropriations at a level of \$599.0 million for FY1994 and \$1.0 billion annually for each of FY1995 through FY2003, for a total appropriations authority of \$9.6 billion. Although the authorization of appropriations expired in 2003, the program authority has no expiration date, and Congress has continued to provide annual appropriations for the program. **Table 1** presents annual appropriations for the program since it began.

For FY2009, Congress appropriated \$829.0 million for the program through regular appropriations for the Department of the Interior, EPA, and related agencies. The American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) provided another \$2.0 billion for water infrastructure projects, delivered through the DWSRF program, for a total of some \$2.83 billion in appropriations for this program for FY2009. For FY2010, in P.L. 111-88, Congress appropriated \$1.39 billion for the DWSRF. For FY2011, the President requested \$1.29 billion, and under several continuing resolutions (CRs), the program was generally funded at FY2010 levels (through March 4, 2011, under P.L. 111-322). The full-year CR (P.L. 112-10) reduced FY2011 funding to \$965.0 million (\$963.1 million after applying an across-the-board rescission of 0.2%).

For FY2012, the President requested \$999.0 million, and Congress appropriated \$919.4 million in P.L. 112-74 (\$917.9 million after applying an across-the-board rescission of 0.16%). In this act, Congress applied Davis-Bacon prevailing wage requirements to DWSRF program funding for FY2012 and all future years.

For FY2013, the President requested \$850.0 million for the DWSRF program. In September 2012, Congress approved a six-month CR, P.L. 112-175, to fund government agencies through March 27, 2013, generally at FY2012 levels with an across-the-board increase of 0.612%. On

<sup>11</sup> SDWA §1420; 42 U.S.C. §300g-9.

<sup>&</sup>lt;sup>12</sup> The Department of the Interior, Environment, and Related Agencies Appropriations Act, 2006, P.L. 109-54, Title II, August 2, 2005, 119 Stat. 530, provided: "That for fiscal year 2006 and thereafter, State authority under section 302(a) of P.L. 104-182 shall remain in effect."

<sup>&</sup>lt;sup>13</sup> In ARRA, Congress imposed several new conditions on projects receiving DWSRF assistance, including Davis-Bacon prevailing wage requirements and "Buy American" requirements. The act also required states to use at least 50% of the funds to further subsidize loans (including forgiveness of principal, negative interest loans, and grants), and to reserve at least 20% of the funds for green infrastructure, water efficiency improvements, or other environmentally innovative projects. (See discussion in the "Congressional Actions" section.)

March 26, 2013, the six-month CR was superseded by the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6), which provided full-year continuing appropriations for Interior, EPA, and related agencies through September 30, 2013. After taking into account sequestration and a 0.2% rescission pursuant to P.L. 113-6, EPA allocated \$861.3 million for the program for FY2013. Additional SRF funds were appropriated for FY2013 in the Disaster Relief Appropriations Act, 2013 (P.L. 113-2), including \$95.0 million (\$100.0 million before sequestration) for the DWSRF program and \$475.0 million (\$500.0 million before sequestration) for the Clean Water SRF program. These funds were targeted for drinking water and wastewater infrastructure projects in areas of New Jersey and New York affected by Hurricane Sandy.

For FY2014, the President requested \$817.0 million, and EPA received \$906.9 million. The President reduced the request to \$757.0 million for FY2015, but Congress again appropriated \$906.9 million in P.L. 113-235. 15

For FY2016, the President requested \$1.18 billion for the DWSRF program, and Congress appropriated \$863.2 million (P.L. 114-113). For FY2017, the President requested \$1.020 billion. House-passed H.R. 5538, Department of the Interior, Environment, and Related Agencies Appropriations Act, 2017, would fund the DWSRF program at \$1.07 billion for FY2017—an increase of \$207.0 million from for FY2016. The Senate Committee on Appropriations recommended \$1.02 billion for FY2017.

From 1997 through June 2015, cumulative appropriations for the DWSRF program reached \$19.2 billion. Adjusted for set-asides and transfers between the clean water and drinking water SRFs, cumulative net federal contributions totaled \$18.3 billion. When combined with the 20% state match (\$3.3 billion), bond proceeds, loan principal repayments, and other funds, the total DWSRF investment through June 2015 had reached \$32.0 billion, and the program had provided more than \$30.0 billion in assistance. Over the same period, more than 12,400 projects had received assistance, and 9,188 had been completed. Cumulatively, 70% of SRF agreements and 36% of funding assistance went to public water systems serving communities with 10,000 or fewer people.

As noted earlier, in contrast to direct grants for construction projects—which would not create an ongoing funding source—the revolving fund program was designed to provide seed money to states in the form of capitalization grants to help generate a sustainable source of funding in each of the states over time.

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<sup>&</sup>lt;sup>14</sup> This amount also takes into account P.L. 113-6, Section 1406, which rescinded \$10.0 million from unobligated DWSRF balances. The law also rescinded \$10.0 million from unobligated CWSRF balances.

<sup>&</sup>lt;sup>15</sup> For more information on EPA appropriations, see CRS Report R43709, *Environmental Protection Agency (EPA):* FY2015 Appropriations, by (name redacted) .

<sup>&</sup>lt;sup>16</sup> Detailed national and state program data are available at http://water.epa.gov/grants\_funding/dwsrf/index.cfm.

Table I. Drinking Water State Revolving Fund Program Funding, FY1997-FY2016

(in millions of dollars, nominal and adjusted for inflation [est.] 2015 dollars)

Fiscal Year	Authorizations	Appropr	Appropriations	
		Nominal	Adjusted for Inflation	
1997	\$1,000.0	\$1,275.0	\$1,799.9	
1998	\$1,000.0	\$725.0	\$1,011.0	
1999	\$1,000.0	\$775.0	\$1,067.2	
2000	\$1,000.0	\$820.0	\$1,106.1	
2001	\$1,000.0	\$823.2	\$1,084.5	
2002	\$1,000.0	\$850.0	\$1,102.0	
2003	\$1,000.0	\$844.5	\$1,074.3	
2004	_	\$845.0	\$1,049.0	
2005	_	\$843.2	\$1,014.9	
2006	_	\$837.5	\$976.3	
2007	_	\$837.5	\$950.4	
2008	_	\$829.0	\$921.7	
2009	_	\$829.0	\$911.1	
2009/ARRA	_	\$2,000.0	\$2,198.0	
2010	_	\$1,387.0	\$1,511.0	
2011	_	\$963.1	\$1,028.3	
2012	_	\$917.9	\$962.5	
2013	_	\$956.3ª	\$985.8	
2014	_	\$906.9	\$919.2	
2015	_	\$906.9	\$906.9	
2016	_	\$863.2	\$849.7	
Total		\$20,035.2b	\$23,429.8	

**Sources:** Prepared by CRS using the most current information available from House, Senate, or conference committee reports accompanying the annual appropriations bills that fund EPA and Administration budget documents, including the President's annual budget requests as presented by the Office of Management and Budget (OMB) and EPA's accompanying annual congressional budget justifications. "ARRA" refers to the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). Inflation-adjusted values are based on OMB, Budget of the United States Government Fiscal Year 2017, Historical Tables, Table 5.4—Discretionary Budget Authority by Agency 1976-2021, and Table 10.1—Gross Domestic Product and Deflators Used in the Historical Tables - 1940–2020, http://www.whitehouse.gov/omb/budget/Historicals.

- a. FY2013 post-sequestration enacted amounts are as presented in EPA's FY2013 Operating Plan. This amount reflects the baseline appropriation level of \$861.3 (\$908.7 pre-sequestration and pre-rescission) plus \$95.0 million (\$100.0 million pre-sequestration) provided for the DWSRF program in the Disaster Relief Appropriations Act, 2013 (P.L. 113-2) for projects in New Jersey and New York that incurred damage from Hurricane Sandy. EPA reports the pre-rescission, pre-sequestration funding level to be \$908.7 million.
- b. Funds available to states are reduced by amounts that EPA sets aside from the annual appropriation. For FY2016, for example, EPA reserved \$20.0 million for American Indian and Alaska Native water system grants (SDWA §1452(i)) and \$2.0 million to reimburse small systems for unregulated contaminants (§1452(o)).

# **Drinking Water Infrastructure Needs**

To determine how to allot DWSRF funds among the states, EPA is required to assess the capital improvement needs of eligible public water systems every four years. <sup>17</sup> Concurrently, and in consultation with the Indian Health Service and Indian tribes, EPA must assess needs for drinking water treatment facilities to serve Indian tribes and Alaska Native villages. 18 EPA is required to distribute the DWSRF funds among the states based on the results of the most recent needs survey. 19 Eligible systems include approximately 52,000 community water systems (publicly or privately owned) and 21,400 not-for-profit nontransient noncommunity water systems.

In 2013, EPA issued the 2011 Drinking Water Needs Survey and Assessment—the most recent and fifth such survey. This needs survey indicates that public water systems need to invest \$384.2 billion on infrastructure improvements over 20 years (\$19.2 billion annually) to achieve regulatory compliance and ensure the provision of safe tap water. <sup>20</sup> EPA reports that this amount is similar to the 2007 and 2003 needs estimates of \$379.7 billion and \$375.9 billion, respectively, when adjusted to 2011 dollars. The agency noted that these surveys reflect the use of increasingly consistent methodologies for needs estimation among the states and improved reporting of needs related to infrastructure rehabilitation and replacement.

Although all the infrastructure projects in the needs assessment would promote the health objectives of the act, just \$42.0 billion (10.9%) of the funding needed is attributable to SDWA regulations, while \$342.2 billion (89.1%) represents nonregulatory costs. <sup>21</sup> Most regulatory funding needs typically involve the upgrade, replacement, or installation of treatment technologies. Most nonregulatory funding needs typically involve installing, upgrading, or replacing transmission and distribution infrastructure to allow a system to continue to deliver safe drinking water. Although these system problems often do not cause a violation of a drinking water standard, projects to correct infrastructure problems may be eligible for DWSRF funding if needed to address public health risks.

The 2011 needs survey presented the 20-year needs estimates by category: transmission and distribution, treatment, source, storage, and other. As seen in Figure 1, the largest needs category, installation and rehabilitation of transmission and distribution systems, accounted for \$247.5 billion (64.4%) of total 20-year needs. Water treatment needs constituted the next largest category, accounting for \$72.5 billion (18.9%) of total needs, while water storage accounts for \$39.5 billion (10.3%), and source (projects needed to obtain safe water supplies, including rehabilitation and installation of wells) accounts for \$20.5 billion (5.3%) of total 20-year needs. The survey also included \$235.9 million for projects to address security needs. However, EPA concluded that security-related needs may be far greater, because many water systems incorporate these costs into the costs of broader construction projects rather than report them separately.

<sup>&</sup>lt;sup>17</sup> SDWA §1452(h); 42 U.S.C. §300j-12(h). EPA must report each needs assessment to Congress.

<sup>&</sup>lt;sup>18</sup> SDWA §1452(i); 42 U.S.C. §300j-12(i).

<sup>&</sup>lt;sup>19</sup> In June 2013, EPA published the allotment percentages that provide the basis for allocating the DWSRF appropriations among the states for FY2014 through FY2017. EPA, "State Allotment Percentages for the Drinking Water State Revolving Fund Program," 78 Federal Register 36183, June 17, 2013.

<sup>&</sup>lt;sup>20</sup> EPA, Office of Water, Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress, April 2013, http://water.epa.gov/grants\_funding/dwsrf/upload/epa816r13006.pdf.

<sup>&</sup>lt;sup>21</sup> Ibid., p. 10.

Total National Need: \$384.2 billion

Source: 5.3%
Other: 1.1%

Transmission and Distribution: \$247.5

Treatment: \$72.5

Storage: \$39.5

Source: \$20.5

Other: \$4.2

Figure 1.Total 20-Year Need by Project Type

(in billions of 2011 dollars)

**Source:** U.S. Environmental Protection Agency, Office of Water, *Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress*, EPA 816-R-13-006, April 2013.

**Notes:** EPA reported that of the total national need of \$348.2 billion, \$42.0 billion (10.9%) is attributed to costs of SDWA regulations, while \$342.2 billion (89.1%) represents nonregulatory costs (e.g., replacing distribution lines). In the 2007 survey, SDWA compliance accounted for 16% and nonregulatory costs accounted for 84% of needs. EPA also noted an increased need for new source water infrastructure as more communities experience drought. "Other" includes security measures, computer systems, and other needs not captured elsewhere.

The needs survey also breaks down the 20-year needs estimates according to system size and ownership. The 20-year drinking water infrastructure need for all the states totaled \$376.0 billion. Within that total, the reported needs among community water systems and not-for-profit noncommunity water systems (e.g., schools with their own water wells) broke out as follows:

- Large community water systems (serving more than 100,000 people): \$145.1 billion (36% of the total 20-year need);
- Medium systems (serving from 3,301 to 100,000 people): \$161.8 billion (43.6%);
- Small systems (serving 3,300 or fewer people): \$64.5 billion (17.4%); and
- Not-for-profit noncommunity systems: \$4.6 billion (3%).

The American Indian and Alaska Native village water system needs totaled \$3.3 billion. The 20-year needs reported by American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands totaled \$669.7 million. EPA estimated that an additional \$4.9 million would be needed for systems to comply with proposed and recently promulgated regulations.

EPA noted that the total needs estimate may be conservative for several reasons: (1) systems are required to meet stringent documentation criteria when identifying needs; (2) many systems did not fully understand their security needs at the time of the assessment; (3) capital improvement

plans often cover fewer than 10 years, while the survey tries to capture 20-year estimates; and (4) the survey is limited to eligible needs, thus excluding projects related to dams, raw water reservoirs, fire protection, operation and maintenance, and future growth.

Other needs assessments have also been prepared, including EPA's 2002 Gap Analysis. <sup>22</sup> This study identified potential funding gaps between projected needs and spending from 2000 through 2019. EPA estimated a potential 20-year funding gap for drinking water capital and operations and maintenance ranging from \$45.0 billion to \$263.0 billion, depending on different scenarios. <sup>23</sup> A 2012 study prepared by the American Water Works Association (AWWA) projected that restoring and expanding water systems to keep up with population growth would require a nationwide investment of at least \$1 trillion over the next 25 years. <sup>24</sup> Additionally, the authors of a recent AWWA-sponsored analysis of lead service line occurrence estimated that there may be 6.1 million lead service lines nationwide. The AWWA notes that, while progress has been made, removal of these lines could represent an additional \$30.0 billion in infrastructure funding needs. <sup>25</sup>

## **Water Infrastructure Funding Issues**

With the creation of the DWSRF program, Congress acted to help public water systems finance infrastructure projects needed to achieve or maintain compliance with SDWA requirements and, more broadly, to protect public health. While this federal/state program provides an important means for addressing drinking water needs, a substantial gap remains between financing needs and available funds. The 2011 needs survey identified a 20-year investment need of \$19.2 billion annually, <sup>26</sup> and as infrastructure ages, needs are projected to increase. As noted, needs eligible for DWSRF funding include projects required for SDWA compliance (10.9% of needs) and projects that are nonregulatory but needed to meet the act's health protection objectives (89.1% of needs).

Since 1997, Congress has appropriated a total of \$20.0 billion (nominal dollars) for the DWSRF program. These federal funds—augmented by the state match, leveraging, repayments, and interest earnings—have created significant financing capacity among the state DWSRFs. However, many expect a funding gap to persist, and new SDWA rules are expected to drive up future needs estimates.

Overall, federal spending on drinking water infrastructure represents a small portion of such spending. The Congressional Budget Office reports that, in 2014, the federal share of total public spending on water and wastewater utilities was 4%, while state and local government expenditures accounted for 94% of all public spending on this infrastructure.<sup>27</sup>

<sup>&</sup>lt;sup>22</sup> EPA, Clean Water and Drinking Water Infrastructure Gap Analysis Report, EPA 816-R-02-020, September 2002.

<sup>&</sup>lt;sup>23</sup> For more information on this study and other needs assessments, see CRS Report RL31116, *Water Infrastructure Needs and Investment: Review and Analysis of Key Issues*, by (name redacted) and (name redacted) .

<sup>&</sup>lt;sup>24</sup> Stratus Consulting, *Buried No Longer: Confronting American's Water Infrastructure Challenge*, American Water Works Association, 2012, http://www.awwa.org/legislation-regulation/issues/infrastructure-financing.aspx.

<sup>&</sup>lt;sup>25</sup> See, David A. Cornwell, Richard A. Brown, and Steve H. Via, "National Survey of Lead Service Line Occurrence," *Journal of the American Water Works Association*, vol. 108, no. 4, http://www.awwa.org/resources-tools/public-affairs/press-room/press-release/articleid/4074/lead-service-line-analysis-examines-scope-of-challenge.aspx. The authors noted that the data were limited, and the number of remaining lead service lines could range from 5.1 million to 7.7 million lines in communities nationwide.

<sup>&</sup>lt;sup>26</sup> EPA, Clean Water and Drinking Water Infrastructure Gap Analysis Report.

<sup>&</sup>lt;sup>27</sup> Congressional Budget Office, *Public Spending on Transportation and Water Infrastructure*, 1956 to 2014, March 2015, p. 28.

In addition to infrastructure needs, other SDWA mandates are eligible for DWSRF funding, thus increasing competition for these resources. The DWSRF program embraces competing objectives, and, thus, this competition is perhaps unavoidable. On the one hand, the fundamental purpose of the program is to capitalize revolving funds in the states in order to generate a perpetual source of funding for drinking water projects. On the other hand, Congress authorized multiple set-asides to fund other drinking water program priorities and requirements, such as system compliance capacity assurance, operator certification, wellhead protection, and small system technical assistance. Overall, states may use as much as 31% of their grants for the set-asides and another 30% to provide additional loan subsidies to disadvantaged communities.

While these options offer states flexibility to tailor their programs to meet their particular needs, using funds for these activities could significantly erode the corpus of state funds and slow the rate at which they become capitalized. A concern for states is that, to the degree that Congress relies on the DWSRF to fund other SDWA requirements—rather than providing separate appropriations—the potential of the DWSRF program is diminished. Moreover, in recent appropriations acts, Congress has added several policy directives not present in the SDWA that may also affect the states' ability to grow or maintain their SRFs. These added provisions include specified additional subsidization requirements for disadvantaged systems, Buy American (iron and steel), and Davis-Bacon prevailing wage requirements.

A chronic issue concerns the need for communities to address drinking water infrastructure requirements that are outside the scope of the DWSRF program. Communities must typically address several categories of infrastructure requirements that are unrelated to SDWA compliance and, thus, ineligible for DWSRF assistance. These categories include future growth, ongoing rehabilitation, and operation and maintenance of systems. EPA has reported that outdated and deteriorated drinking water infrastructure poses a fundamental long-term threat to drinking water safety and that, in many communities, basic infrastructure costs can far exceed SDWA compliance costs. As reported in EPA's most recent drinking water needs assessment, less than 11% of the 20-year estimated need is directly related to compliance with SDWA regulations.

Although the DWSRF program does not address certain categories of needs and excludes many noncommunity systems from coverage, it remains a significant tool to the mix of federal, state, and local initiatives intended to help communities ensure the safety of water supplies. Nonetheless, the question of how to meet water infrastructure needs is a persistent issue that is receiving increased attention as the nation's water infrastructure ages and as budgets at all levels face constraints.<sup>29</sup>

A fundamental question has concerned the long-term federal role in water infrastructure financing. A subset of questions concerns how deficit reduction efforts might affect federal involvement. For example, how might deficit reduction objectives impact proposes to develop a small system grant program or sustainable funding source, such as a water infrastructure trust fund? Other persistent water infrastructure issues include the gap between funding and estimated needs, the growing cost of complying with SDWA standards (particularly for small communities), the ability of small or disadvantaged communities to afford DWSRF financing, and the broader need for cities to maintain, upgrade, and expand infrastructure unrelated to SDWA compliance.

<sup>&</sup>lt;sup>28</sup> Projects to replace aging infrastructure are eligible if they are needed to maintain compliance or to further public health protection goals.

<sup>&</sup>lt;sup>29</sup> See, for example, U.S. Government Accountability Office, *Water Infrastructure: Information on Selected Midsize and Large Cities with Declining Populations*, GAO-16-785, September 2016, http://www.gao.gov/products/GAO-16-785.

# **Congressional Actions**

Despite ongoing legislative interest, budgetary constraints and other concerns have posed challenges to efforts to enact new water infrastructure financing legislation. In the face of large needs, competition for limited federal resources, and debate over the federal role in funding water infrastructure, EPA, states, and utilities have increasingly focused on alternative management and financing strategies to address costs and promote greater financial self-reliance among water systems. Strategies include establishing public-private partnerships, improving asset management, and adopting full-cost pricing for water services. Such approaches are intended to improve the financial and managerial sustainability of water systems; however, they may be limited in their ability to fully meet needs, particularly among poorer communities and small water systems that may lack economies of scale. Consequently, interest in exploring new infrastructure financing options—such as an infrastructure bank—and expanding federal assistance has persisted.

#### 113th Congress

Deficit reduction pressures are not new to DWSRF appropriations considerations, but statutory spending caps in the Budget Control Act of 2011, as amended by the American Taxpayer Relief Act of 2012, placed added constraints on appropriators.<sup>30</sup> Building on previous efforts, the 113<sup>th</sup> Congress considered various alternative financing approaches for water infrastructure.

#### Water Infrastructure Finance and Innovation Act (WIFIA)

Enacted in June 2014, the Water Resources Reform and Development Act of 2014 (P.L. 113-121, H.R. 3080) includes in Title V, Subtitle C, the Water Infrastructure Finance and Innovation Act of 2013 (WIFIA). In WIFIA, Congress authorized a pilot loan guarantee program to test the ability of innovative financing tools to promote increased development of, and private investment in, water infrastructure projects—while reducing costs to the federal government. The pilot program is intended to complement, and not replace, the SRF programs.

Eligible projects include SRF-eligible projects and a wide range of water resource development projects that must generally have costs of at least \$20.0 million. Such large projects face difficulty securing significant funding through the SRF programs. Moreover, unlike the SRF programs, WIFIA is not focused on regulatory compliance and, therefore, may be more available for other large-scale water infrastructure projects. For projects serving areas with a population of 25,000 or fewer individuals, eligible projects must have a total cost of at least \$5.0 million. Projects financed under this program will be subject to Davis-Bacon prevailing wage requirements. Also, WIFIA funds may be used only if all the iron and steel used in a project are produced in the United States (unless this requirement would increase project costs by more than 25%).<sup>31</sup>

(P.L. 112-74, H.Rept. 112-331, p. 236). I DWSRF program in appropriations acts.

<sup>&</sup>lt;sup>30</sup> See CRS Report R42949, The American Taxpayer Relief Act of 2012: Modifications to the Budget Enforcement Procedures in the Budget Control Act, by (name redacted) (available from the author).

<sup>&</sup>lt;sup>31</sup> In ARRA (P.L. 111-5), Congress provided \$2 billion in supplemental appropriations for the DWSRF program and applied new requirements to the use of the funds. Specifically, Davis-Bacon prevailing wage requirements and "Buy American" iron and steel requirements applied to projects receiving any ARRA assistance (P.L. 112-74, §606). The 112<sup>th</sup> Congress made permanent the application of Davis-Bacon prevailing wage requirements to the DWSRF program (P.L. 112-74, H.Rept. 112-331, p. 236). Buy American iron and steel requirements have been regularly applied to the

The act authorized to be appropriated to the Secretary of the Interior and the EPA administrator \$20.0 million each for FY2015 and \$25.0 million each for FY2016, with amounts increasing annually to \$50.0 million each for FY2019. The Consolidated and Further Continuing Appropriation Act, 2015 (P.L. 113-235), did not appropriate funds for project financing but did provide EPA with \$2.2 million for hiring staff to implement the WIFIA program.

Other measures were introduced to provide alternative financing options for water infrastructure. H.R. 2084, for example, would have established a national infrastructure bank to guarantee debt for a wide range of infrastructure projects.

## 114th Congress

The 114<sup>th</sup> Congress has focused considerable attention on DWSRF program funding as well as EPA's efforts to implement the pilot loan program authorized in the Water Infrastructure Finance and Innovation Act in P.L. 113-121.<sup>32</sup> Additionally, an array of proposals have been introduced to provide infrastructure funding assistance to the city of Flint, MI, to address lead contamination of drinking water associated with old infrastructure and corrosion problems and to broadly increase water infrastructure funding available for communities.

As in previous Congresses, legislation has been introduced to amend the Internal Revenue Code of 1986 to provide that the volume cap for private activity bonds (PABs) would not apply to bonds for drinking water or wastewater facilities. These tax-exempt bonds provide a financing tool to stimulate private sector investment in public projects. However, federal law imposes state bond caps, limiting the ability of state and local governments to use PABs to finance drinking water and wastewater infrastructure projects.<sup>33</sup>

#### WIFIA Program

EPA has been working to put the WIFIA program in place and may begin financing water infrastructure projects in FY2017. For FY2015, Congress appropriated \$2.2 million to develop the WIFIA program at EPA but provided no project funds. In the President's FY2016 budget request, EPA noted that it faced a complex task in standing up a new federal loan program:

The agency is focused on executing a thoughtful and efficient design and plan to implement WIFIA.... The EPA will direct resources as available in FY 2016 to continue the complex work necessary to stand up a new federal loan program. Funding is requested to establish policy goals, program, scope, policies, procedures, evaluation criteria, application processes, internal controls and governance, and other similar efforts necessary to inform credit subsidy models. The agency will work within overall staffing

Service data suggest that PAB expansion may have only a small impact on water infrastructure investment. For a review of PABs, caps, qualified programs, and congressional action, see CRS Report RL31457, Private Activity Bonds:

Congressional Research Service

An Introduction, by (name redacted) and (name redacted) .

<sup>&</sup>lt;sup>32</sup> For further information, see CRS Report R43315, Water Infrastructure Financing: The Water Infrastructure Finance and Innovation Act (WIFIA) Program, by (name redacted) .

<sup>&</sup>lt;sup>33</sup> The federal tax code allows state and local governments to use tax-exempt bonds to finance certain projects that would be considered private activities. Congress uses an annual state volume cap to limit the amount of tax-exempt bond financing and restricts the types of "qualified private activities" that would qualify for tax-exempt financing to types of projects specified in the tax code. Supporters, including most segments of the water industry, assert that such bills would expand opportunities for private investment in the water infrastructure market and generate significant private capital at a very low cost to the government. Others have argued generally against subsidies and note the loss of revenue that would result from such an approach. Congress has generally limited the use of tax-exempt bonds for private activities because of concern about their overuse and related revenue losses. Moreover, Internal Revenue

levels to support this program. The EPA may use contract resources for additional specialized financial, legal, and engineering expertise to address potentially very complex issues.<sup>34</sup>

For FY2016, P.L. 114-113 similarly included \$2.2 million for EPA to prepare to implement the WIFIA program. For FY2017, the President has requested \$20.0 million for EPA to begin financing large drinking water and wastewater infrastructure projects, including administrative costs. The program goal is to "accelerate investment in our nation's water and wastewater infrastructure by providing supplemental credit assistance to credit worthy nationally and regional significant water projects."35 EPA estimates, "Of the total requested, \$15.0 million in credit subsidies could potentially support a loan capacity of nearly \$1.0 billion to eligible entities for infrastructure projects with the initial loans taking place in FY2017."<sup>36</sup> House-passed Department of the Interior, Environment, and Related Agencies Appropriations Act, 2017 (H.R. 5538, Title II), would provide \$50.0 million for the WIFIA program. In the Senate, the Committee on Appropriations has recommended \$30.0 million for this program for FY2017 in S. 3068, Title II.

## **DWSRF** Appropriations

For the DWSRF program for FY2016, the President requested \$1.186 billion, which was \$429.0 million above the \$757.0 million requested for FY2015 and \$279.0 million above the FY2015 appropriation level of \$907.0 million. Congress appropriated \$863.2 million for the DWSRF program for FY2016 (P.L. 114-113). The conference report provided that each state must use 20% of its capitalization grant "to provide additional subsidy to eligible recipients in the form of forgiveness of principal, negative interest loans, or grants (or any combination of these)."37

The President requested \$1.02 billion for FY2017, H.R. 5538 would fund the DWSRF program at \$1.07 billion for FY2017—an increase of \$207.3 million from for FY2016. S. 3068, as reported, included \$1.02 billion for this program for FY2017.

#### **Infrastructure Funding Legislation**

The drinking water crisis in Flint, MI, has heightened attention to the state of the nation's drinking water infrastructure and the challenges many communities face in addressing their infrastructure needs. An array of bills have been introduced in the 114<sup>th</sup> Congress to increase funding authority for the DWSRF program and make revisions to the program; establish new funding sources through grants, a trust fund, and other means; and revise the tax code to stimulate greater private sector investment in water infrastructure projects. Senate-passed S. 2848, Water Resources Development Act (WRDA) of 2016, includes a number of SDWA and CWA infrastructure provisions and incorporates several bills introduced in response to the Flint water crisis, The House-passed WRDA bill, H.R. 5303, Section 192, would authorize the U.S. Army Corps of Engineers to provide water infrastructure assistance to certain communities in states subject to presidential emergency declarations as a result of lead or other contaminants in the water system. Selected features of various legislative proposals are highlighted below.

<sup>&</sup>lt;sup>34</sup> EPA, Office of the Chief Financial Officer, United States Environmental Protection Agency Fiscal Year 2016 Justification of Appropriation Estimates for the Committee on Appropriations, February 2015, p. 552.

<sup>35</sup> EPA, FY2017 Budget in Brief, February 2016, p. 103, https://www.epa.gov/sites/production/files/2016-02/ documents/fy17-budget-in-brief.pdf.

<sup>&</sup>lt;sup>36</sup> Ibid., p. 27.

<sup>&</sup>lt;sup>37</sup> H.R. 2029.

- H.R. 5070/S. 2830, Lead Testing in School and Child Care Drinking Water Act of 2016, would establish a voluntary school and child care lead testing grant program (\$100.0 million annually) to states to assist local educational agencies in voluntary testing for lead in drinking water at schools and child care programs. (See also S. 2821 and S. 2848.)
- H.R. 4879/S. 2776, the TEST for Lead Act, would provide that, to be eligible to receive a DWSRF capitalization grant, a state must carry out a program to assist local educational agencies in testing for lead in school drinking water.
- H.R. 4797/S. 2588, the GET THE LEAD OUT Act of 2016, would direct EPA to
  establish a grant program to provide assistance to eligible entities for lead
  reduction projects (including replacement of privately owned portions of lead
  service lines, pipes, and fixtures). The bill would authorize \$60.0 million for each
  of FY2017 through FY2021 to carry out the program. (See also S. 2821 and S.
  2848.)
- H.R. 4653, the Assistance, Quality, and Affordability Act of 2016, would make an array of changes to SDWA—and especially to DWSRF provisions—placing greater focus on assisting disadvantaged communities. The bill would authorize DWSRF program appropriations at a total of \$21.17 billion over five years (as would S. 2583), revise the list of eligible activities, and require states to give funding priority to projects needed to make compliance affordable. The bill would also specify the criteria states must consider in determining compliance "affordability" for purposes of identifying disadvantaged communities and providing additional subsidization. H.R. 4653 would also authorize a lead service line replacement grant program and a drinking water infrastructure resiliency and sustainability grant program.
- H.R. 4542, the Low Income Sewer and Water Assistance Act of 2016, would amend the CWA to establish a pilot program to award grants to 10 or more eligible entities to assist low-income households in maintaining access to water, sewer, or other sanitation facilities. An eligible entity is a municipality or other owner of a public water system subject to a consent decree under the CWA.
- H.R. 4468, the Water Infrastructure Trust Fund Act of 2016, would direct 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. The Secretary would provide a label for a fee of 3 cents per unit. Funds would be made available only when CWSRF appropriations fell below the preceding five-year average. Of the available amount, 85% would be for CWSRF capitalization grants and 15% for DWSRF grants.
- H.R. 4438, the Drinking Water Contamination Emergency Supplemental Appropriations Act, 2016, proposes \$1.0 billion in emergency appropriations for a grant to Michigan to replace water infrastructure that is not lead free.
- H.R. 4479, the Flint Families Act, would—among other provisions—direct EPA to make grants (matched by the state) to the state of Michigan and the city of Flint to address lead and other contaminants in the city drinking water supply. The bill would also increase the amount of DWSRF funds that may be used for loan forgiveness where a federal or state emergency declaration has been issued due to a threat from heightened exposure to lead in a municipal water supply.

- H.R. 499/S. 2606 (and S. 2821, Section 1502) would amend the Internal Revenue Code of 1986 to provide that the volume cap for private activity bonds does not apply to bonds for water and wastewater infrastructure for the purpose of stimulating private investment in water infrastructure.<sup>38</sup>
- H.R. 6116, Safe Drinking Water Act Amendments of 2016, is a broad SDWA reauthorization bill. It includes DWSRF provisions similar to those in H.R. 4653 (such as placing greater emphasis on assisting disadvantaged communities, authorizing DWSRF program appropriations totaling \$21.17 billion over five years, and requiring states to give funding priority to projects needed to make compliance affordable). Both bills would also authorize a lead service line replacement grant program and a drinking water infrastructure resiliency and sustainability grant program. Among other provisions, H.R. 6116 would revise SDWA standard setting and enforcement provisions.
- S. 2848/H.R. 5303, the Water Resources Development Act (WRDA) of 2016, include different drinking water infrastructure funding provisions. Senate-passed S. 2848 contains a number of SDWA and CWA infrastructure provisions and incorporates several bills introduced in response to the Flint water crisis. Among the DWSRF provisions, the bill would establish a grant program to address lead or other contaminants, including replacement of private drinking water infrastructure; authorize states to provide additional subsidization for DWSRF loans for projects using innovative technologies (including technologies to identify and mitigate sources of drinking water contamination); and authorize states to use DWSRF funds for source water protection. Similar to S. 2579, this bill would make available \$100.0 million in DWSRF funding to a state subject to a federal emergency declaration to provide assistance to a public water system that is the subject of the declaration to address lead or other contaminants and authorize such a state to provide additional DWSRF loan forgiveness. S. 2848 would also provide \$70.0 million for secured loans under WIFIA to eligible states and purposes noted above and to any WIFIA eligible entity for as much as 80% of project costs. SRF funds could be used to cover remaining costs. The bill would establish a Water Infrastructure Investment Trust Fund, as proposed in H.R. 4468, with 15% of funds to go to the DWSRF program and 85% to the CWSRF program. House-passed H.R. 5303, Section 192, would authorize appropriations of \$170 million for the U.S. Army Corps of Engineers to provide design and construction assistance to communities specified in earlier WRDA bills in states subject to presidential emergency declarations as a result of lead or other contaminants in the water system for repair or replacement of public and private infrastructure.<sup>39</sup>
- S. 2821, TRUE Leadership Act of 2016, is a broad water infrastructure funding and lead testing, removal, and regulation bill that incorporates an array of other bills. It would establish a grant program for lead service line removal and other

<sup>&</sup>lt;sup>38</sup> The Fixing America's Surface Transportation (FAST) Act, enacted December 4, 2015 (P.L. 114-94; Section 1445), repealed a provision of the Water Resources Reform and Development Act of 2013 (WRRDA, P.L. 113-121) that restricted the use of tax-exempt bonds for the non-federal portion of costs of water infrastructure projects financed under WIFIA.

<sup>&</sup>lt;sup>39</sup> For more information on drinking water infrastructure provisions in the House and Senate WRDA bills, see CRS In Focus IF10474, WRDA 2016: Infrastructure, Lead, and Other Safe Drinking Water Act Provisions in H.R. 5303 and S. 2848, by (name redacted)

lead reduction projects and authorize appropriations of \$60.0 million for each of FY2017 through FY2012 for this program. It would reauthorize DWSRF program appropriations (\$21.17 billion over five years), reauthorize CWSRF appropriations (\$34.93 billion over five years), permanently authorize the WIFIA program (currently a pilot program) and authorize mandatory funding for this program (\$1.36 billion for each of FY2016 through FY2026), exempt bonds for water and sewage facilities from the volume cap on private activity bonds, specify requirements for a new Lead and Copper Rule, establish an innovative water technology grant program, and establish a voluntary school and child care lead testing grant program (\$100.0 million annually) to states to assist local educational agencies in voluntary testing for lead in drinking water at schools and child care programs. It would require states to give funding priority to projects needed to make SDWA compliance affordable. Among other provisions, the bill would also authorize the President to declare a major disaster under the Stafford Act, at the request of a state governor, to address lead contamination from a water system.

- S. 2820, CLEARR for Drinking Water Act of 2016, among other provisions, would add new reporting requirements for drinking water contaminants, revise DWSRF project funding priorities to increase emphasis on assisting disadvantaged communities, and—similar to H.R. 4653—specify the criteria states must consider in determining compliance "affordability" for purposes of identifying disadvantaged communities and providing additional subsidization.
- S. 2673, the Water Technology Acceleration Act of 2016, would authorize \$100.0 million to make additional DWSRF allotments to states to be used for deployment of a broad range of innovative water technologies. The bill includes parallel CWSRF provisions. (See also S. 2821.)
- S. 2583, the FUND Water Act, would authorize appropriations for the DWSRF for a total of \$21.17 billion over five years and for the CWSRF for a total of \$34.93 billion over five years.
- S. 2579, the Drinking Water Safety and Infrastructure Act, among other purposes, would provide \$100.0 million in DWSRF grants for states for which the President has declared an emergency under the Stafford Act regarding lead in a public water supply to provide assistance to address lead or other contaminants in drinking water. The bill would further provide \$70.0 million in WIFIA credit subsidies for EPA to make secured loans to (a) eligible states to address lead in drinking water in eligible systems, and (b) other eligible entities under WIFIA for various projects authorized under WIFIA.
- S. 268, the Rebuild America Act of 2015, is a broad infrastructure bill that would authorize appropriations for FY2015 through FY2019 for a range of infrastructure programs. Among other provisions, the bill would authorize the appropriation of \$6.00 billion annually for the DWSRF program, \$6.00 billion annually for the CWSRF program, and another \$2.00 billion annually for EPA to provide loans for large water infrastructure projects under WIFIA.

As the 114<sup>th</sup> Congress has considered funding for water infrastructure programs and related measures, budget constraints, debate over debt reduction, and debate over the federal role in funding municipal infrastructure have been significant factors in the deliberations.

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