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Drinking Water State Revolving Fund: Program Overview and Issues

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Summary

In the Safe Drinking Water Act (SDWA) Amendments of 1996 (P.L. 104-182), Congress authorized a drinking water state revolving loan fund (DWSRF) program to help public water systems finance infrastructure projects needed to comply with federal drinking water regulations and to protect public health. Under this program, states receive capitalization grants to make loans for drinking water projects and to support certain other SDWA activities. The DWSRF program was authorized at \$1 billion annually through FY2003. Since the program was first funded in FY1997, Congress has provided \$7.8 billion, including roughly \$843 million for FY2005. Through June 2004, the program had provided \$7.9 billion in assistance and supported 6,500 projects.

The Environmental Protection Agency's (EPA's) 2001 survey of capital improvement needs for public water systems indicated that these systems need to invest \$150.9 billion on infrastructure improvements over 20 years to ensure the provision of safe water. Key issues include the gap between estimated needs and funding; SDWA compliance costs, particularly for small systems; and the broader need for cities to improve their water infrastructure, separate from SDWA compliance. In the past two congresses, bills were reported that proposed to increase DWSRF funding levels and establish small system grant programs. Several new standards promise to increase costs, and congressional interest is likely to continue. This report will be updated.

The 104th Congress substantially revised the Safe Drinking Water Act with the 1996 SDWA Amendments. A key new provision, Section 1452, authorized a drinking water state revolving loan 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 to capitalize DWSRFs. States must match 20% of the federal grant and develop intended use plans that indicate how allotted funds will be used. States may use the DWSRF to provide loans and other assistance to eligible public water systems for expenditures that EPA has determined will facilitate SDWA compliance or significantly further the Act's health protection objectives. Eligible projects include installation and replacement of failing 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 also may be eligible. This program is patterned after the 1987 Clean Water Act SRF (CWSRF) program for financing municipal wastewater treatment projects.

Public water systems eligible to receive DWSRF assistance include community water systems (whether publicly or privately owned) and not-for-profit noncommunity water systems.¹ 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. Also, some states have laws or policies that preclude privately owned utilities from receiving DWSRF assistance.

The 1996 law authorized appropriations for the DWSRF program of \$599 million for FY1994 and \$1 billion for each of FY1995 through FY2003. Congress has provided roughly \$7.8 billion to date, including \$1.275 billion for FY1997 (the first year for which DWSRF authority was in place), \$725 million for FY1998, \$775 million for FY1999, \$820 million for FY2000, \$825 million for FY2001, \$850 million for FY2002, \$850 million for FY2003 (\$844.5 million after applying the mandatory across-the-board 0.65% reduction in P.L. 108-7), \$850 million for FY2004 (\$844.9 million when adjusted for the 0.59% reduction under P.L. 108-199), and \$850 million for FY2005 (\$843.2 million after the 0.8% reduction in P.L. 108-447, the Consolidated Appropriations Act, FY2005).

Through June 2004, EPA had awarded \$5.74 billion in capitalization grants that, when combined with the state match, bond proceeds, interest payments, and other funds, amounted to \$9.64 billion in DWSRF funds available for loans and other assistance. Through this same period, total assistance provided by the program reached \$7.9 billion of the amount available, and 6,500 drinking water projects had received assistance.²

DWSRF Allotments and Set-Asides

EPA is required to allot DWSRF funds among the states based on the results of the most recent quadrennial needs survey (discussed below). Each state and the District of Columbia must receive at least 1% of available funds, and as much as 0.33% must be made available for grants to the Virgin Islands, the Commonwealth of the Northern Mariana Islands, American Samoa, and Guam. Before distributing funds among the states, EPA sets aside from the annual DWSRF appropriation \$2 million to pay for monitoring of unregulated contaminants in small and medium water systems, and 1.5% for grants to Indian Tribes and Alaska Native Villages (\$12.67 million for FY2004). EPA is also authorized to reserve annually up to \$30 million to reimburse states for operator training and certification costs if separate funding is not provided under Section 1419; EPA reserved the full amount for several years, but reserved none for FY2004, as state training

¹ A community water system is a system that serves at least 15 service connections used by year-round residents, or that regularly serves at least 25 year-round residents. Other public water systems are noncommunity water systems, e.g., schools and workplaces with their own wells.

² For a detailed discussion of program activities and issues, see the EPA Report to Congress, *The Drinking Water State Revolving Fund Program*, EPA 918-R-03-009, May 2003, available online at [<http://www.epa.gov/safewater/dwsrf.html#Facts>].

programs matured. To provide technical assistance to small systems, EPA may reserve up to 2%, with a \$15 million cap; however, funding for this activity is provided under Section 1442, and EPA has not set aside funds for this purpose.

The law also includes several set-asides and directives that apply to 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 place 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 grant to provide additional assistance, such as forgiveness of loan principal or negative interest rate loans, to help economically disadvantaged communities (as determined by the state).

Among other optional set-aside provisions, states may reserve as much as 4% of their DWSRF allotment to cover the costs of administering the DWSRF program and an additional portion to help pay the costs of other mandates added by the 1996 law. 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 these purposes, states must match these 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 systems as part of a capacity development strategy; and development and implementation of ground water protection programs. Expenditures may not exceed 10% for any one of these activities. (In addition to these set-asides, other SDWA provisions include specific authorizations of appropriations for several of these programs and activities.)

To further enhance public water system compliance with drinking water regulations, the 1996 Amendments added new capacity development and operator certification requirements. The law requires EPA to withhold part of the DWSRF grant from states that do not meet these mandates. Section 1420 requires 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 coming into compliance. If a state has not met these requirements, EPA must withhold a portion of the state's grant as follows: 20% for failure to obtain authority to ensure that new systems have compliance capacity; and 10% in FY2001, 15% in FY2002, and 20% in FY2003 for failure to adopt capacity development strategies. The total amount withheld in any year for these purposes can not exceed 20%. In addition, states were required to adopt programs for training and certifying operators of community and non-transient non-community water systems, and since 2001, EPA must withhold 20% of a state's allotment if the state does not meet these requirements. Any funds withheld under each program would be reallocated among states that have met the requirements for either capacity development or operator certification.

Congress designed the DWSRF program to give states implementation flexibility. Congress also gave states flexibility to set priorities between the SDWA and Clean Water Act SRF programs to accommodate the divergent drinking water and wastewater needs and priorities among the states. The law 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 statute authorized these transfers through FY2001. In October 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. Subsequently, the conference reports for EPA's appropriations have authorized states to continue transferring funds between these programs.

Drinking Water Infrastructure Needs

The Act requires EPA to assess the capital improvement needs of eligible public water systems and to report to Congress in 1997 and every four years thereafter. 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. EPA is required to distribute the DWSRF funds to the states based on the results of the latest needs survey. Eligible systems include approximately 55,000 community water systems and 21,400 not-for-profit noncommunity water systems.

In February 2001, EPA issued the second needs survey which found that eligible water systems need to invest \$150.9 billion over 20 years (from 1999 through 2018).³ Of this amount, \$102.5 billion (68%) is currently needed to ensure the provision of safe drinking water. EPA notes that a "current need" typically involves installing, upgrading, or replacing infrastructure to allow a system to continue to deliver safe drinking water and that systems with current needs are usually not in violation of a drinking water standard. Of the total 20-year need, EPA further estimates that \$31.2 billion is needed to comply with existing SDWA regulations. Treatment for microbiological contaminants alone accounts for \$22.4 billion (72%) of the total regulatory need.

The survey also presents the 20-year needs estimates by category: transmission and distribution, treatment, source, storage, and other. The largest needs category, installation and rehabilitation of transmission and distribution systems, accounts for \$83.2 billion (more than half) of total 20-year needs. Water treatment needs constituted the next largest category, accounting for \$38.0 billion of total needs, while water storage accounts for \$18.4 billion, and source (projects needed to obtain safe water supplies, including rehabilitation and installation of wells) accounts for \$9.6 billion of total 20-year needs.

For further perspective, the needs survey breaks down the 20-year needs estimates according to system size and ownership. Large systems (serving more than 50,000 people) account for \$61.8 billion (41%) of total 20-year need; medium systems (serving from 3,301 to 50,000 people) account for \$43.3 billion; and small systems (serving 3,300 or fewer people) account for \$31.2 billion. Noncommunity water systems have estimated needs of \$3.1 billion. The survey indicates that American Indian and Alaska Native Village water systems have estimated 20-year needs totaling \$2.2 billion, of which \$2.0

³ Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey: Second Report to Congress*, February 2001, available at [<http://www.epa.gov/safewater/needs.html>].

billion is needed currently to ensure the provision of safe drinking water. Estimates of per-household need vary widely depending on system category and size. EPA estimates that the 20-year need per household served by a large system averages \$790. The 20-year need rises to \$1,250 for households served by medium systems, \$3,000 for households served by small systems, \$6,500 for households served by American Indian systems, and \$51,500 for households served by Alaska Native systems.

EPA notes that the total need estimate is conservative for several reasons: (1) systems were required to meet stringent documentation criteria when identifying needs; (2) many systems could not identify all of their needs for the entire 20-year period (capital improvement plans often cover only one to five years); and (3) the survey is limited to estimating eligible needs, thus excluding capital projects related solely to dams, raw water reservoirs, fire protection, and future growth.

Other needs assessments have also been prepared. In 2000, the Water Infrastructure Network (WIN) (a coalition of state and local officials, water and wastewater service providers, health and environmental groups, and others) issued a report concluding that, over the next 20 years, water and wastewater systems need an annual investment of \$23 billion above the current level of investment to meet SDWA and CWA health and environmental priorities and to replace aging infrastructure. In 2000, WIN and other groups presented proposals for a multi-billion dollar investment program in water infrastructure. (For more details, see CRS Report RL31116, *Water Infrastructure Funding: Review and Analysis of Current Issues*.) In 2002, EPA issued *The Clean Water And Drinking Water Infrastructure Gap Analysis*, which identified potential funding gaps between projected needs and spending from 2000 through 2019. This analysis estimated a potential 20-year funding gap for drinking water capital and operations and maintenance ranging from \$45 billion to \$263 billion, depending on different scenarios.⁴

Program Issues

With the authorization of the DWSRF program, Congress acted to help public water systems finance the costs of infrastructure needed to achieve or maintain compliance with SDWA requirements. 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 most recent needs survey identified \$150.9 billion in drinking water infrastructure needs over 20 years, while the DWSRF program was authorized at \$9.6 billion over seven years. The appropriated amounts, 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 requirements are expected to drive up future estimates of needs.

Other drinking water mandates eligible for DWSRF funding heighten 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

⁴ U.S. Environmental Protection Agency, *Clean Water and Drinking Water Infrastructure Gap Analysis Report*, EPA 816-R-02-020, September 2002.

multiple set-asides to fund other drinking water program priorities and requirements, such as system compliance capacity assurance, operator certification, and small system technical assistance. Overall, states may use as much as 31% of their grant for the set-asides and 30% to provide loan subsidies to economically disadvantaged communities. While these options give states flexibility to tailor their programs to meet individual 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 instead of providing separate appropriations, the potential of the DWSRF program is diminished.

A separate issue is the need for communities to address drinking water infrastructure needs that are outside the scope of the DWSRF program. Community water systems typically must address several categories of infrastructure requirements unrelated to SDWA compliance and, thus, generally 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 could far exceed SDWA compliance costs. Although the DWSRF program does not address certain categories of needs and excludes many noncommunity water systems from coverage, with this program Congress has added a major tool to the mix of federal, state, and local initiatives intended to help communities ensure the safety of their drinking water.

In recent years, several committees have held hearings on the SRF programs, infrastructure needs, and funding issues. In the 108th Congress, the Senate Environment and Public Works Committee reported a water infrastructure financing bill, S. 2550, to increase funding authority for the CWSRF and DWSRF programs and to create a small system grant program. To address drinking water security concerns, the 107th Congress authorized funding for community water systems to conduct vulnerability assessments, prepare emergency response plans, and make basic security enhancements (P.L. 107-188). Additionally, EPA has identified security measures that may be funded through DWSRFs. (For more information, see CRS Report RL31294, *Safeguarding the Nation's Drinking Water: EPA and Congressional Actions*.)

Ongoing issues include the gap between drinking water infrastructure funding and estimated needs; the growing cost of complying with drinking water standards, particularly for small communities; the ability of small or economically disadvantaged communities to afford DWSRF financing; the availability of DWSRF and other funds for security measures; and the broader need for cities to upgrade and expand drinking water infrastructure unrelated to SDWA compliance. Congress is likely to continue efforts to enact water infrastructure funding legislation; however, the current budgetary environment could pose real challenges to such efforts. In the face of large needs, scarce federal resources, and debate over the federal role in funding water infrastructure, EPA, states, and utilities have been examining 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. These approaches have their limits, particularly in poorer communities and small water systems; thus, pressure to increase funding is likely to continue. (For more information, see CRS Issue Brief IB10118, *Safe Drinking Water Act: Implementation and Issues*.)