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Safe Drinking Water Act: State Revolving Fund Program

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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 communities finance infrastructure projects needed to comply with federal drinking water regulations and to protect public health. The law further allows states to use part of their DWSRF grants to support source water protection, operator certification, and other eligible set-aside activities. The DWSRF program is authorized at \$1 billion annually through FY2003. Since FY1997 when the program was first funded, Congress has appropriated a total of \$5.27 billion, including \$850 million for FY2002. All states are participating in the DWSRF program, and through FY2000, states had made 1,411 loans worth nearly \$2.84 billion to public water systems. (For information on other federal assistance programs for water projects, see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*.)

In February 2001, the Environmental Protection Agency (EPA) issued the second survey of capital improvement needs for public water systems which forms the basis for allotting DWSRF funds among the states. The survey indicated that communities need to invest roughly \$150.9 billion on drinking water infrastructure improvements over the next 20 years. Issues receiving attention in the 107th Congress include the gap between water infrastructure needs and available funding, and funding issues for small communities. Also, since September 11, Congress has given considerable attention to examining the security of the Nation's drinking water infrastructure and related funding needs. This report will be updated.

Drinking Water SRF Program

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 authorized EPA to make grants to states to

capitalize drinking water 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 that are 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 for assistance. Additionally, some states have laws or policies that preclude privately owned utilities from receiving DWSRF assistance.

The 1996 law authorized appropriations for the DWSRF program at a level of \$599 million for FY1994 and \$1 billion annually for FY1995 through FY2003. Congress has appropriated \$5.27 billion for the program to date, including \$1.275 billion for FY1997 (the first year for which the DWSRF authority was in place), \$725 million for FY1998, \$775 million for FY1999, \$820 million for FY2000, \$825 million for FY 2001, and \$850 million for FY2002.

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 (roughly \$12.4 million for FY2002). 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 FY2001 and plans to do so again for FY2002. Finally, EPA may reserve up to 2%, with a \$15 million cap, to provide technical assistance to small systems; however, funding for this activity is provided under Section 1442, and EPA has not set-aside funds for this purpose.²

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 state allotments and amounts reserved see: [<http://www.epa.gov/safewater/dwsrf/allot.html>].

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 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; delineations or assessments of source water protection areas (from the FY1997 grant only); 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 the state's grant as follows: 20%, for FY1999 and beyond, 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 may not exceed 20%. In addition, states must adopt programs for training and certifying operators of community and non-transient non-community water systems, and as of February 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.³ The conference report for EPA's FY2002 appropriations (P.L. 107-73, H. Rept. 107-272) authorizes states to continue transferring funds for FY2002.

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 4 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).⁴ 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 accounts for \$22.4 billion (72%) of the total regulatory need; the remainder is primarily for treatment projects for reducing chemical contaminants.

The survey also presented 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 billion is need now to ensure the provision of safe drinking water.

³ Environmental Protection Agency. *Implementation of Transfers in the Clean Water and Drinking Water State Revolving Fund Programs. Report to Congress.* October 2000. 41p. Available at [<http://www.epa.gov/safewater/dwsrf.html#Facts>].

⁴ Environmental Protection Agency. *Drinking Water Infrastructure Needs Survey: Second Report to Congress.* February 2001. Available at: [<http://www.epa.gov/safewater/needs.html>].

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 1 to 5 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 to invest \$23 billion annually more than current investments to meet SDWA and CWA health and environmental priorities and to replace aging infrastructure. In early 2000, WIN and other groups have presented proposals for a multi-billion dollar investment program in wastewater and drinking water infrastructure. (For more details, see CRS Report RL31116, *Water Infrastructure Funding: Review and Analysis of Current Issues*.)

September 11, 2001, changed the focus of the infrastructure needs debate. Congress has held hearings examining what has been done and needs to be done to improve the security of the Nations' water infrastructure and has passed legislation to support security efforts. (For more information, see CRS Report RS21026, *Terrorism and Security Issues Facing the Water Infrastructure Sector*. While no formal estimates have been prepared regarding the cost associated with increasing the security of drinking water systems and supplies to protect against attacks, the figure is expected to be in the billions. EPA has identified numerous security measures that may be funded through the DWSRF.⁵

Program Implementation Status

EPA issued guidelines for states to use in developing and administering the drinking water DWSRF program in February 1997 (codified August 7, 2000; 65 *FR* 48286). States moved quickly to establish programs; the first capitalization grant was awarded in March 1997, and the first loan was made in April 1997. By May 1998, all 50 states and Puerto Rico had established the necessary legislative authorities for participation in the DWSRF program. By late 1998, EPA had awarded the first annual grants to every state, Puerto Rico, and the District of Columbia. Through FY2000, states had made 1,411 loans worth a total of \$2.84 billion to water systems; 74% of the loans and 39% of the funds went to small systems.⁶

⁵ For more information, see EPA fact sheet, *Use of the Drinking Water State Revolving Fund (DWSRF) to Implement Security Measures at Public Water Systems*. EPA 816-F-02-040. November 2001. Available at: [<http://www.epa.gov/safewater/dwsrf/security-fs.pdf>].

⁶ For more information, see EPA report, *The Drinking Water State Revolving Fund: Financing America's Drinking Water*, at [<http://www.epa.gov/safewater/dwsrf.html#Facts>].

Program Issues

With the authorization of the DWSRF program, Congress moved 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 second needs survey identified \$150.9 billion in drinking water infrastructure needs over 20 years, while the DWSRF program is authorized at \$9.6 billion over 7 years. The authorized amount, if appropriated and augmented by the state match, leveraging, repayments, and interest earnings, would increase the financing capacity of state DWSRFs. However, a significant gap is likely to persist, and costly new regulations are expected to drive up future estimates of needs.

Also, other SDWA 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 DWSRF 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 source water protection, system compliance capacity assurance, and operator certification. 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 if Congress relies on the DWSRF to fund other SDWA requirements instead of providing separate appropriations, the effectiveness of the DWSRF program would be 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 valuable tool to the mix of federal, state, and local initiatives intended to help communities ensure the safety of their drinking water.

DWSRF issues receiving attention in the 107th Congress include: program adequacy and effectiveness, the gap between drinking water infrastructure funding and estimated needs, small community funding and affordability issues, and the availability of DWSRF funds for security measures. During the first session, the Senate Environment and Public Works Committee, the House Energy and Commerce Committee, and the House Transportation and Infrastructure Committee held hearings on infrastructure needs, funding, and issues and the SRF programs. Two sets of similar bills (H.R. 1178/S. 503 and H.R. 3224/S. 1299) have been introduced to establish grants programs for small systems under the SDWA. Additional infrastructure legislation is under discussion.