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Drinking Water State Revolving Fund: Program Overview and Issues

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Summary

The Safe Drinking Water Act (SDWA) Amendments of 1996 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 the program, states receive capitalization grants to make loans to water systems for drinking water projects and certain other SDWA activities. From FY1997 through FY2007, Congress appropriated roughly $9.47 billion for this program. Under P.L. 110-5, H.J.Res. 20, the DWSRF program is being funded at $837.5 million for FY2007. As of June 2006, the program had provided roughly $11 billion in assistance and had supported 4,985 projects.

The Environmental Protection Agency's (EPA's) latest (2003) survey of capital improvement needs for public water systems found that water systems need to invest $276.8 billion on infrastructure improvements over 20 years to ensure the provision of safe water. This amount represents a 60% increase over the 1999 survey estimate of $165.5 billion (in 2003 dollars) and reflects funds needed for compliance with several new regulations (e.g., the revised arsenic and radium rules), security-related needs, and better reporting of needs for infrastructure rehabilitation and replacement. Key issues include the gap between estimated needs and funding, SDWA compliance costs, and the need for cities to improve water infrastructure, apart from SDWA compliance.

Congress substantially revised the Safe Drinking Water Act with the 1996 SDWA amendments (P.L. 104-182). A key 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 DWSRFs. States must match 20% of their annual 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. 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.

The 1996 law authorized appropriations for the DWSRF program of $599 million for FY1994 and $1 billion for each of FY1995 through FY2003. Under P.L. 110-5 (H.J.Res. 20), the DWSRF program is being funded for FY2007 at $837.5 million, the same amount Congress provided for FY2006.[2] Through FY2007, Congress has appropriated roughly $9.47 billion for the program. For FY2008, the President has requested $842.2 million.

Through June 2006, the EPA had awarded $7.33 billion in capitalization grants, which, when combined with the 20% state match, bond proceeds, loan principal repayments, and other funds, amounted to $12.83 billion in DWSRF funds available for loans and other assistance. Also as of June 2006, 4,985 projects had received assistance, and total assistance provided by the program reached $11.03 billion.[3]

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% 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. Before distributing funds

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[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] Congress has provided $1.275 billion for FY1997 (the first year for which DWSRF authority was in place), $725 million for FY1998, $775 million for FY1999, $816.9 million for FY2000, $823.2 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). For FY2006, P.L. 109-54 included $850 million ($837.5 million after applying two rescissions).

[3] Program statistics are available at [http://www.epa.gov/safewater/dwsrf/dwnims.html]. For further discussion of the DWSRF program, see EPA Report to Congress, *The Drinking Water State Revolving Fund Program*, May 2003, [http://www.epa.gov/safewater/dwsrf.html#Facts].

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 ($12.56 million for FY2006). 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 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 million cap; however, funding for this activity is provided under Section 1442, and EPA has not set aside funds for this purpose.[4]

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 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 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. (Other SDWA provisions include funding authority for several of these programs and activities.)

To further enhance public water system compliance, the 1996 amendments added new 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 coming into compliance. States also were required to adopt programs for training and certifying operators of community and non-transient non-community water systems.

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[4] DWSRF state allotments and set asides for FY2006 and FY2007 are available at EPA website, [http://www.epa.gov/safewater/dwsrf/allotments/index.html].

Congress designed the DWSRF program to give states implementation flexibility. Congress 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 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

SDWA section 1452(h) requires EPA to assess the capital improvement needs of eligible public water systems and to report to Congress every four years. 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 (section 1452(I)). EPA is required to distribute the DWSRF funds to the states based on the results of the latest needs survey. Eligible systems include approximately 53,000 community water systems and 21,400 not-for-profit noncommunity water systems.

EPA conducted its third survey of capital improvement needs for public water systems in 2003.[5] Based on this survey, EPA estimates that systems need to invest $276.8 billion on drinking water infrastructure improvements over 20 years to comply with drinking water regulations and to ensure the provision of safe water. This amount exceeds the 2001 needs survey estimate of $165.5 billion (in 2003 dollars) by more than 60%. The 2003 survey includes funds needed for compliance with several recent regulations (including the revised arsenic and radium rules) and pending rules for radon and other contaminants. It also identified $1 billion in security-related needs. Also, water systems made efforts to improve reporting of needs for infrastructure rehabilitation and replacement, which EPA determined had been under-reported in the previous surveys.

Of the total national need of $276.8 billion, $160.5 billion (60%) 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. EPA reports that, although all of the infrastructure projects in the needs assessment promote the health objectives of the act, $45.1 billion (16%) of the total is attributable to SDWA regulations, while $237 billion (84%) represents nonregulatory costs (e.g., routine replacement of basic infrastructure).

The survey 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 $183.6 billion (two-thirds) of total 20-year needs. Water treatment needs constituted the next largest

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[5] Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment: Third Report to Congress*, June 2005. EPA 816-R-05-001. Available online at [http://www.epa.gov/safewater/needs.html].

category, accounting for $53.2 billion of total needs, while water storage accounts for $24.8 billion, and source (projects needed to obtain safe water supplies, including rehabilitation and installation of wells) accounts for $12.8 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 $122.9 billion of total 20-year need; medium systems (serving from 3,301 to 50,000 people) account for $103.0 billion; and small systems (serving 3,300 or fewer people) account for $34.2 billion. Not-for-profit noncommunity water systems have estimated needs of $3.4 billion. American Indian and Alaska Native Village water systems have estimated 20-year needs of $1.3 billion and $1.2 billion, respectively.

EPA notes 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. 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 billion to $263 billion, depending on different scenarios.[6] (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 Claudia Copeland and Mary Tiemann.)

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 2003 needs survey identified $276.8 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

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[6] 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. Communities typically must address several categories of infrastructure requirements 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. 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 water supplies.

Ongoing drinking 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 economically disadvantaged communities to afford DWSRF financing; and the broader need for cities to maintain, upgrade, and expand infrastructure unrelated to SDWA compliance. Despite congressional interest in recent years, budgetary constraints have posed challenges to efforts to enact water infrastructure funding legislation. In the face of large needs, scarce 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. These approaches are improving the sustainability of water systems; however, they may be limited in their ability to fully meet needs, particularly among poorer communities and small water systems. Thus, interest in increased infrastructure financing is likely to continue.

In recent years, House and Senate committees have held hearings on the SRF programs, infrastructure needs, and funding issues. In the past three Congresses, the Senate Environment and Public Works Committee has reported a water infrastructure financing bill, including S. 1400 in the 109th Congress. This bill would have amended the SDWA and the Clean Water Act (CWA) to reauthorize both SRF programs (authorizing $15 billion over five years for the DWSRF). It also would have authorized grant programs for small or economically disadvantaged communities for critical drinking water and water quality projects. In the 110th Congress, early attention has focused on funding infrastructure projects under the CWA. The House has passed three such bills: H.R. 720, to amend and reauthorize the CWA SRF; H.R. 569, to authorize sewage overflow control grants; and H.R. 700, to reauthorize a pilot program for alternative water source grants to meet critical water supply needs.