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Report to the Subcommittee on Interior, Environment, and Related Agencies, Committee on Appropriations, House of Representatives

June 2006

CLEAN WATER

How States Allocate Revolving Loan Funds and Measure Their Benefits

GAO-06-579

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Highlights

Highlights of GAO-06-579, a report to the Chairman and Ranking Member, Subcommittee on Interior, Environment, and Related Agencies, Committee on Appropriations, House of Representatives

Why GAO Did This Study

Communities will need hundreds of billions of dollars in coming years to construct and upgrade wastewater treatment facilities, sewer systems, and other water infrastructure. To finance these efforts, they will rely heavily on low-interest loans from the Environmental Protection Agency's (EPA) Clean Water State Revolving Fund (CWSRF) program to supplement their own funds. Through fiscal year 2005, states have used their CWSRFs to provide communities over $52 billion for a variety of water quality projects. The Clean Water Act allows states to use their CWSRFs to (1) construct or improve conventional wastewater infrastructure, (2) control diffuse (nonpoint) sources of pollution such as agricultural runoff and leaking septic systems, and (3) protect federally-designated estuaries.

Given the states' flexibility in determining how to spend CWSRF dollars, GAO was asked to examine (1) the extent to which states use their CWSRF dollars to support conventional wastewater treatment infrastructure versus other qualifying expenses, (2) the strategies states use to allocate their CWSRF dollars among qualifying expenses, and (3) the measures states use to ensure that their allocation strategies result in the most efficient and effective use of CWSRF dollars. EPA reviewed a report draft, providing technical comments that were incorporated.

www.gao.gov/cgi-bin/getrpt?GAO-06-579.

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-3841 or stephensonj@gao.gov.

What GAO Found

Since 1987, states have used 96 percent (about $50 billion) of their CWSRF dollars to build, upgrade, or enlarge conventional wastewater treatment facilities and conveyances. Projects to build or improve wastewater treatment plants alone account for over 60 percent of this amount, with the remainder supporting the construction or rehabilitation of sewer and storm water collection systems. CWSRF assistance for nonpoint source activities represents only 4 percent (about $2 billion) of CWSRF dollars, although it accounts for over a quarter of all CWSRF projects financed. To date, 37 states report using some portion of their CWSRF funds to directly support nonpoint source activities. Nationwide, 23 percent of CWSRF funds (64 percent of all CWSRF loan agreements) were devoted to water quality projects in communities with populations of less than 10,000 people.

The 50 states (and Puerto Rico) have used a variety of strategies to allocate CWSRF funds to meet their individual needs. For example, the state of Washington sets aside 20 percent of its CWSRF dollars to support nonpoint source projects, while Alabama state law defines only traditional public wastewater treatment facilities as appropriate projects under its CWSRF program. Other states have designed their programs to target selected types of borrowers. Pennsylvania, for example, has targeted borrowers in small or rural communities during the allocation process. According to EPA and state officials, states' allocation strategies may change as certain states' priorities and clean water needs shift. Among the reasons are (1) aging wastewater infrastructure in need of rehabilitation or replacement; (2) population growth and redistribution; (3) changes in EPA enforcement priorities; and (4) stricter EPA and state water quality standards for temperature, nutrients, and sediments.

EPA and the states use a uniform set of financial and environmental measures to help determine efficient and effective use of CWSRF resources. Financial measures include, among others, return on federal investment, the pace at which available funds are loaned, and the sustainability of the fund. EPA regional officials conduct annual reviews of each state program to help ensure the fiscal integrity of the state programs. All programs are also subject annually to independent financial audits. To measure environmental outcomes of CWSRF-funded projects, in fiscal year 2005, EPA developed an electronic benefits reporting system that all 51 programs have agreed to use. Currently, the system collects data only on anticipated environmental benefits associated with CWSRF-funded projects. However, to varying degrees, some states such as Oklahoma and Washington are attempting to gather data on actual environmental benefits from their CWSRF-funded projects, including nonpoint source projects.

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Abbreviations

CBO	Congressional Budget Office
CSO	Combined Sewer Overflows
CWSRF	Clean Water State Revolving Fund
EPA	Environmental Protection Agency
GAAP	Generally Accepted Accounting Principles
IPPS	Integrated Project Priority Setting
NIMS	National Information Management System
OMB	Office of Management and Budget
PART	Program Assessment Rating Tool
PER	Program Evaluation Report
SSO	Sanitary Sewer Overflows
TMDL	Total Maximum Daily Load

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United States Government Accountability Office
Washington, DC 20548

June 5, 2006

The Honorable Charles H. Taylor
Chairman
The Honorable Norm Dicks
Ranking Minority Member
Subcommittee on Interior, Environment, and Related Agencies
Committee on Appropriations
House of Representatives

Recent estimates by the Environmental Protection Agency (EPA) and the Congressional Budget Office suggest that, over the next 15 years, local communities will need hundreds of billions of dollars to construct and upgrade aging wastewater treatment facilities, sewer systems, and other projects that improve water quality and help safeguard public health and the environment. These communities will rely on EPA's Clean Water State Revolving Fund (CWSRF) to supplement the funds they obtain from their ratepayers to finance these efforts. The Water Quality Act of 1987 amended the Clean Water Act[1] and created the CWSRF program to provide an independent, permanent, low-cost source of financing for a wide range of efforts to protect or improve water quality. Through the CWSRF, EPA provides annual grants to the states to capitalize state-level CWSRFs. States must match these EPA grants with a minimum of 20 percent of their own contributions. States loan their CWSRF dollars to local governments and other entities for various water quality projects, and loan repayments are cycled back into the state-level programs to fund additional projects. According to the EPA, all 50 states and Puerto Rico currently maintain revolving loan funds that have provided an average of over $4 billion in total annual assistance since 2000.[2] From fiscal years 1987 through 2005, state CWSRFs have provided over $52 billion and made over 16,000 loans for a variety of water quality projects.

The CWSRF provides states with significant flexibility to design programs to meet their water quality needs. States may use their CWSRF resources

[1]The Federal Water Pollution Control Act Amendments of 1972 are commonly referred to as the Clean Water Act.

[2]The District of Columbia does not participate in the Clean Water State Revolving Fund program.

to (1) construct or improve conventional wastewater infrastructure, such as treatment plants and sewer systems; (2) control diffuse, or "nonpoint" sources of pollution, such as runoff from agricultural activities and leaking septic systems; and (3) develop or implement management plans in federally-designated estuaries. Although the CWSRF is primarily a low-interest loan program, states can also use it to refinance, purchase, or guarantee local debt and purchase bond insurance. States may customize their loan terms, including interest rates (from 0 percent to market rates) and repayment periods (up to 20 years), depending on the financial and environmental needs of potential borrowers. EPA provides a range of financial and programmatic training and direct technical support to the states through its regional offices.

Citing the states' flexibility in determining how to use their CWSRFs, you asked that we examine (1) the extent to which states are currently using their CWSRF dollars to support conventional wastewater treatment infrastructure versus other qualifying expenses, (2) the strategies states use to allocate their CWSRFs among qualifying expenses, and (3) the measures states use to ensure that their allocation strategies result in the most efficient and effective use of their CWSRFs.

To determine the extent to which states are currently using their CWSRFs to support conventional wastewater infrastructure versus other qualifying expenses, we reviewed EPA's National Information Management System, the database EPA uses to track expenditures for all 51 CWSRF programs. To examine the strategies states use to allocate their CWSRFs among qualifying expenses, we interviewed EPA and state-level agency officials and reviewed annual reports and other official documents. We conducted field visits to a diverse group of states—including Delaware, Minnesota, Montana, North Carolina, Ohio, Texas, and Washington—to obtain detailed illustrative information about CWSRF allocation strategies from state-level CWSRF program officials and selected recipients of CWSRF funds. To gather information on additional states, we conducted structured phone interviews with EPA officials from all 10 regional offices and followed up with selected state-level CWSRF program officials to discuss allocation strategies and other aspects of their programs. We also reviewed each state's most recent CWSRF Program Evaluation Report (PER), which EPA conducts annually. To examine how states ensure that their allocation strategies result in the most efficient and effective use of CWSRF dollars, we interviewed EPA and state officials about the financial and environmental measures they use to assess CWSRF performance. In addition, we reviewed EPA's online CWSRF Environmental Benefits Reporting System. We conducted our work between July 2005 and April

2006 in accordance with generally accepted government auditing standards. See appendix I for a more detailed discussion of our scope and methodology.

Results in Brief

Since the inception of the CWSRF program in 1987, states have allocated about 96 percent, or about $50 billion, of their CWSRF dollars to building, upgrading, or enlarging conventional wastewater treatment facilities and their associated conveyances. Projects to build or improve wastewater treatment plants alone account for over 60 percent of this amount, with the remainder supporting the construction or rehabilitation of sewer and storm water collection systems. In addition to these more conventional expenditures, 37 states report using some portion of their CWSRFs to address nonpoint source pollution, which sometimes account for serious pollution problems. Nonpoint source projects account for only 4 percent of CWSRF expenditures (about $2 billion) but represent more than 25 percent of all CWSRF projects financed. Among all categories of CWSRF-eligible nonpoint source projects, states provided the greatest level of support—about 39 percent of all nonpoint source dollars—to activities related to sanitary landfills. Nationwide, 23 percent of CWSRF funds, or 64 percent of all CWSRF loan agreements, were targeted for water quality projects in communities of less than 10,000 people. A number of states, such as North Carolina, Pennsylvania, and West Virginia, have developed special initiatives or customized their loan terms to help small or economically disadvantaged communities develop needed wastewater infrastructure.

As allowed by the Clean Water Act, states have used considerable flexibility in designing their CWSRF programs to meet their individual clean water needs. In particular, states choose the extent to which they will use CWSRF funds to support point source control projects (e.g., wastewater treatment plant construction) and nonpoint source projects (e.g., implementing agricultural best management practices or replacing failing septic systems). The state of Washington, for example, uses up to 20 percent of its CWSRF dollars for a set-aside to support nonpoint source projects and estuary conservation and management projects, while Alabama state law defines only traditional public wastewater treatment facilities as appropriate projects under its CWSRF program. Just as some states allocate CWSRF resources based upon identified water quality needs, other states have designed their programs to target selected types of borrowers. For example, Pennsylvania has targeted borrowers in small or rural communities during the allocation process, with 90 percent of all CWSRF loan agreements and almost 75 percent of total funding is directed

to projects in small communities. Similarly, Ohio offers CWSRF loans with (1) a 0 percent interest rate to communities with populations of less than 2,500 and a median household income of less than $45,000 and (2) a 1 percent interest rate to those with populations between 2,500 and 10,000 and a median household income of less than $38,000. According to EPA and state officials, states' allocation rationales may change as certain states' priorities and clean water needs shift. Specifically, states may alter their allocation strategies in response to (1) aging wastewater infrastructure needing rehabilitation or replacement; (2) population growth and redistribution; (3) changes in EPA enforcement priorities, particularly with regard to limiting sewage discharges during wet weather conditions; (4) pressure to implement EPA's Total Maximum Daily Load (TMDL) program; and (5) stricter EPA and state water quality standards for temperature, nutrients, and sediments.

States use a specific set of financial and environmental measures to help determine efficient and effective use of CWSRF resources. Financial measures include a set of national financial indicators, such as return on federal investment, the pace at which available funds are loaned, and sustainability of the CWSRF. EPA regional officials conduct annual reviews of each state program to help ensure the fiscal integrity of the state programs. CWSRFs are also subject to annual independent financial audits. To measure environmental outcomes of CWSRF-supported projects, in fiscal year 2005, EPA developed an electronic benefits reporting system, which all states have agreed to use. Currently, the system collects data on anticipated environmental benefits associated with all types of CWSRF projects. It does not require any environmental monitoring, since the information input focuses on anticipated environmental benefits. However, some states are attempting to gather data on actual environmental benefits from their CWSRF-supported projects, including nonpoint source projects. Washington State, for example, recently required applicants to monitor the environmental impact of its CWSRF projects 3 to 5 years after project completion.

Background

Local governments have primary responsibility for wastewater treatment, owning and operating more than 17,000 treatment plants and 24,000 collection systems nationwide. Local ratepayers have long been relied upon to fund both construction costs and operating and maintenance costs associated with facilities serving their communities. However, the federal government has provided financial assistance for these wastewater treatment facilities since the enactment of the Water Pollution Control Act Amendments of 1956, which established the federal Construction Grants

program. Through this program, the federal government provided grants directly to local governments for constructing treatment facilities but limited the federal contribution to the lesser of 30 percent of eligible construction costs or $250,000. The Federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act, increased the federal share of costs to 75 percent. According to the Congressional Budget Office, federal outlays for wastewater treatment grants rose tenfold during the 1970s, reaching a high of $8.4 billion in 1980. Subsequent amendments in 1981 and 1987 reduced and then phased out the construction grant program, replacing it with the CWSRF. Instead of providing grants directly to localities, the CWSRF provides federal grants to the states, which in turn provide loans to communities and other entities to finance wastewater treatment and other water quality projects.[3] The 1987 law established a system in which the states would use the loan repayments to finance future CWSRF loans, thereby allowing the state revolving funds to operate without sustained federal support. Congress authorized appropriations through 1994 but has continued to appropriate funds to the CWSRF each year since.

The transfer of federal funds to state-level CWSRFs begins when Congress appropriates funds annually to the EPA. EPA then allots capitalization grants to the individual states. The Clean Water Act also requires states to provide state funds to match 20 percent of the total federal CWSRF capitalization grants. To receive its allotment, a state must provide an Intended Use Plan that lists potential projects to solve water quality problems and solicit public comments on that list. After completing the plan and receiving its capitalization grant, a state has up to 1 year to enter binding commitments (later converted into loan agreements) with potential borrowers to fund specific water quality projects. The majority of CWSRF borrowers are municipalities and other local units of government, although in some states nonprofit organizations, businesses, farmers,

[3]The CWSRF is one source among many federal and state programs that local governments can turn to for financial assistance with their water quality projects. Federal agencies—such as the U.S. Department of Agriculture's Rural Utility Service, the Department of Housing and Urban Development, and the Department of Commerce's Economic Development Administration—also provide grants and loans for the construction of wastewater and sewer systems. According to EPA, 40 states also have separate grant or loan programs that provide financial assistance for clean water projects.

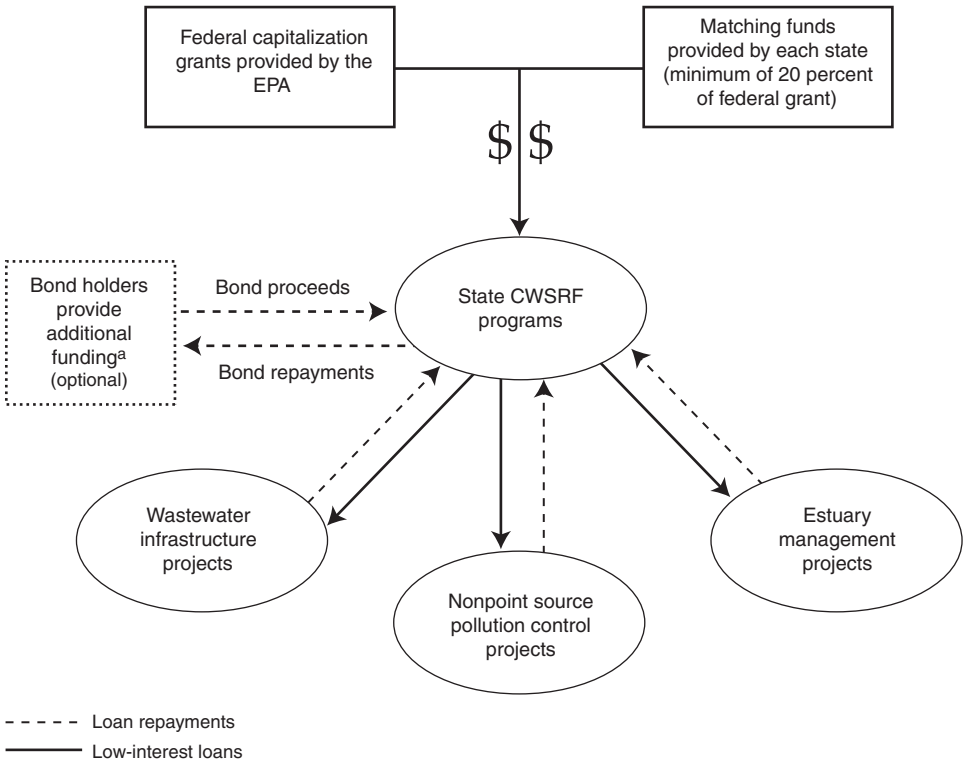
homeowners, and watershed groups are eligible to seek nonpoint source funding through the CWSRF.[4]

According to an EPA headquarters official, a single CWSRF loan may support multiple clean water projects.[5] State CWSRF administrators set loan terms, interest rates, and repayment periods. Loan repayments are cycled back into the state-level fund and used for additional water quality projects. States also have the option of using CWSRF funds as collateral to borrow in the public bond market to increase the pool of available funds, a process referred to as "leveraging." Figure 1 illustrates the flow of funds through the CWSRF program.

[4]EPA also provides grants for nonpoint source projects through its National Nonpoint Source program.

[5]EPA reports that since July 1, 1987, states have provided over 16,752 CWSRF loans to support 22,674 projects.

Figure 1: Flow of Funds through the CWSRF Program



Source: EPA.

[a]To date, 27 states have "leveraged" their federal capitalization grants and state matching funds to borrow additional money in the public bond market. Nationally, leveraged bonds comprise about 27 percent of total CWSRF funds, while loan repayments comprise about 10 percent.

States can use their CWSRF resources to construct or upgrade wastewater infrastructure, address nonpoint sources of pollution,[6] or develop or implement management plans in federally-designated estuaries. States use a state-developed, EPA-approved, ranking system to direct funds to the highest priority projects. The ranking system considers applicant communities' current regulatory compliance status, imminent public and environmental health threats, and the relative importance of the affected

[6]Nonpoint source pollution, unlike pollution from industrial and sewage treatment plants, flows into waterways from many diffuse sources. Nonpoint source pollution is caused by rainfall or snowmelt moving over and through the ground and transporting natural and human-made pollutants, finally depositing them into surface bodies of water and groundwater.

bodies of water. States are not required to fund these projects in priority order; decisions on which projects to fund first are often based on a project's readiness to proceed. However, states must first use their CWSRFs to ensure that existing wastewater treatment facilities are in compliance with, or are making progress toward, deadlines, goals, and requirements of the Clean Water Act.[7] After meeting this "first use" requirement, states may use their CWSRFs to construct other wastewater infrastructure or for nonpoint source pollution and estuary management projects.[8]

States Have Loaned 96 Percent of Their CWSRF Funds for Wastewater Infrastructure, with 23 Percent Supporting Projects in Small Communities

Taken together, states have loaned the majority of their CWSRF dollars — 96 percent or about $50 billion since 1987—to build, upgrade, or enlarge conventional wastewater treatment facilities and conveyances. Direct CWSRF support for nonpoint source activities represents only 4 percent of CWSRF dollars (about $2 billion), although it accounts for over a quarter of all CWSRF projects financed. Nationwide, 23 percent of CWSRF funds (64 percent of all CWSRF loan agreements) were devoted to water quality projects in communities with populations of less than 10,000 people.

States Have Used about 96 Percent of Their CWSRFs to Support Conventional Wastewater Infrastructure Projects

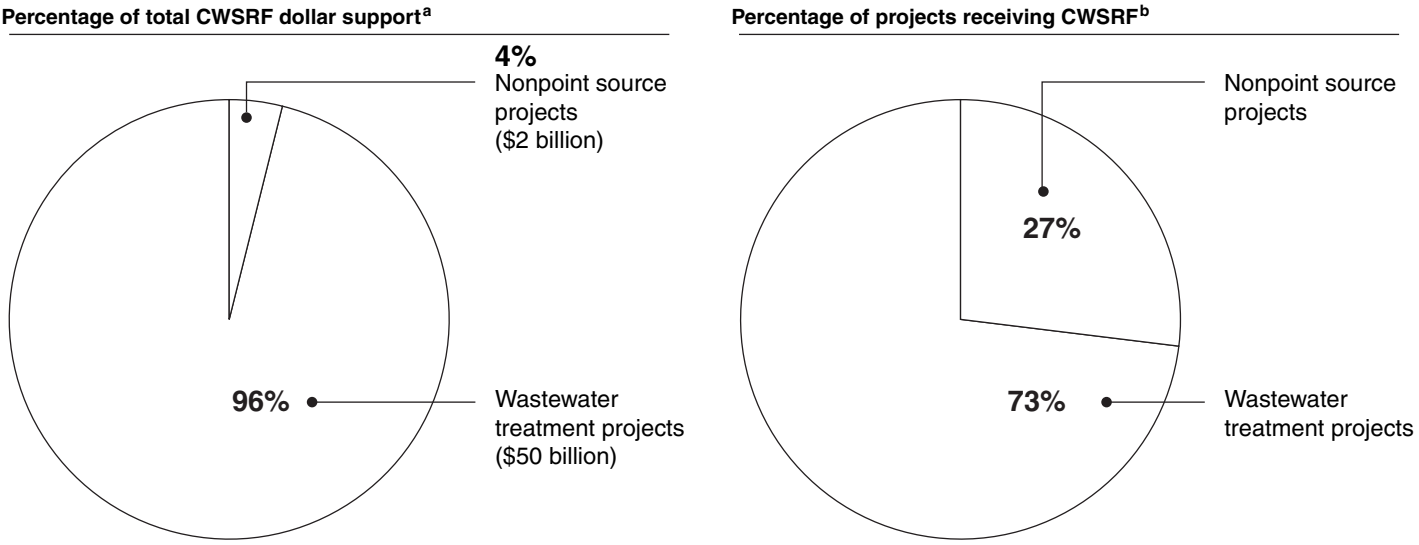
All 51 CWSRF programs use the large majority of their CWSRF resources for conventional wastewater infrastructure projects. From fiscal year 1987 through June 2005, the Clean Water State Revolving Fund program has provided over $52 billion dollars in financial assistance to local governments and others for a variety of water quality improvement projects across the nation. States provided about 96 percent of this amount—or $50 billion—to municipalities to build, upgrade, or enlarge conventional wastewater treatment facilities and conveyances. EPA reports that conventional wastewater infrastructure projects account for about 73 percent of all CWSRF-funded projects. By their nature,

[7]According to EPA headquarters officials, all 51 CWSRF programs met this "first use" requirement in the early 1990s. As such, these officials indicate that this requirement no longer affects states' funding decisions.

[8]According to EPA, as of June 30, 2005, no state has reported using the estuary management category of qualifying expenses, but a few states have reported that a portion of their wastewater treatment and nonpoint source assistance also supports activities to develop or implement management plans in federally designated estuaries.

wastewater infrastructure projects are typically much more expensive to complete than nonpoint source projects. Figure 2 illustrates the relative funding for the types of projects receiving CWSRF assistance.

Figure 2: CWSRF Support and Type of CWSRF-Supported Projects, Fiscal Years 1987 through 2005



Source: EPA.

Note: According to EPA, as of June 30, 2005, no state has reported using CWSRF resources to directly support projects that are exclusively fundable under the estuary management category of qualifying expense (such as fish restocking).

[a]Total CWSRF funding equals $52.7 billion. According to EPA, $600 million of available CWSRF resources support short-term planning and design activities and, as such, have not yet been allocated by the states among the qualifying categories of expense. However, EPA expects that these funds will be allocated (most likely to wastewater infrastructure projects) when rolled into longer-term construction projects.

[b]According to EPA, states have reported that their CWSRF loans have supported a minimum of 22,674 projects, but because states do not use common standards to report the numbers of projects supported by loan agreements, the percentage of projects that are point source versus the percentage that are nonpoint source are imprecise, and the actual percentages might be either higher or lower than reported above. However, we were unable to quantify the extent of this imprecision.

Within the conventional wastewater treatment category, states may allocate their CWSRF resources among the following seven major categories of projects:

- *Secondary Treatment* includes infrastructure designed to ensure that wastewater treatment plant effluent meets EPA's secondary treatment standards, a requirement of all new and existing wastewater treatment facilities.

- *Advanced Treatment* includes infrastructure designed to further remove nutrients and other matter from wastewater treatment plant effluent beyond secondary treatment standards.

- *New Sewers* includes the construction of new wastewater conveyances—such as collector and interceptor sewers—to carry household and industrial wastewater to treatment facilities.[9]

- *Sanitary Sewer Overflow* correction includes efforts to prevent the occasional or incidental discharge of untreated sewage from municipal sanitary sewer systems that can occur due to inclement weather and improper maintenance or operation of sewer systems.[10]

- *Combined Sewer Overflow* correction includes efforts to prevent or mitigate discharges of untreated wastewater from combined sewer systems, which are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same pipe. Combined sewer systems were designed in many cities to occasionally discharge excess wastewater directly to nearby water bodies. However such overflows often pose significant public health and pollution problems and have become a national enforcement priority for EPA.

- *Storm Water Sewers* includes both storm water infrastructure and efforts to plan and implement municipal storm water management programs.

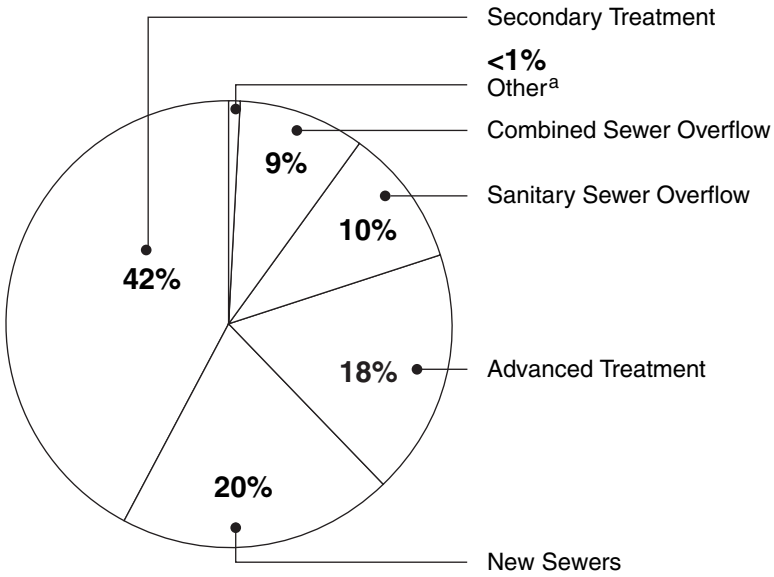
- *Recycled Water Distribution* includes projects to convey recycled water (i.e., treated wastewater) from treatment facilities to end users such as golf courses and municipal gray water systems.

[9]In order to estimate the amount of CWSRF support for the New Sewers category, EPA collects data on CWSRF support in two additional CWSRF expenditure categories—Collector Sewers and Interceptor Sewers. Collector Sewers use pipes to consolidate and transfer wastewater from sanitary or industrial wastewater sources to an interceptor sewer, which then carries the wastewater to a treatment facility. Interceptor Sewer projects include major sewer lines that receive wastewater from collection sewers and carry the wastewater to a treatment facility or another interceptor sewer.

[10]In order to estimate the amount of CWSRF support for Sanitary Sewer Overflow correction, EPA collects data on CWSRF support in two additional CWSRF expenditure categories—Infiltration/Inflow correction and Replacement/Rehabilitation of Sewers. Infiltration/Inflow correction includes projects to control water penetration into sewer systems through defective pipes, manholes, drains, and storm sewers. Replacement/Rehabilitation of Sewers includes projects to reinforce or rebuild structurally deteriorating sewers.

As shown in figure 3, nationwide, states have allocated about 60 percent of their CWSRF wastewater infrastructure dollars for secondary and advanced treatment projects at wastewater treatment facilities. The remainder supports sewers and other conveyances.

Figure 3: CWSRF Financial Assistance by Subcategory of Wastewater Infrastructure Projects, Fiscal Years 1987 through 2005



Source: EPA's National Information Management System.

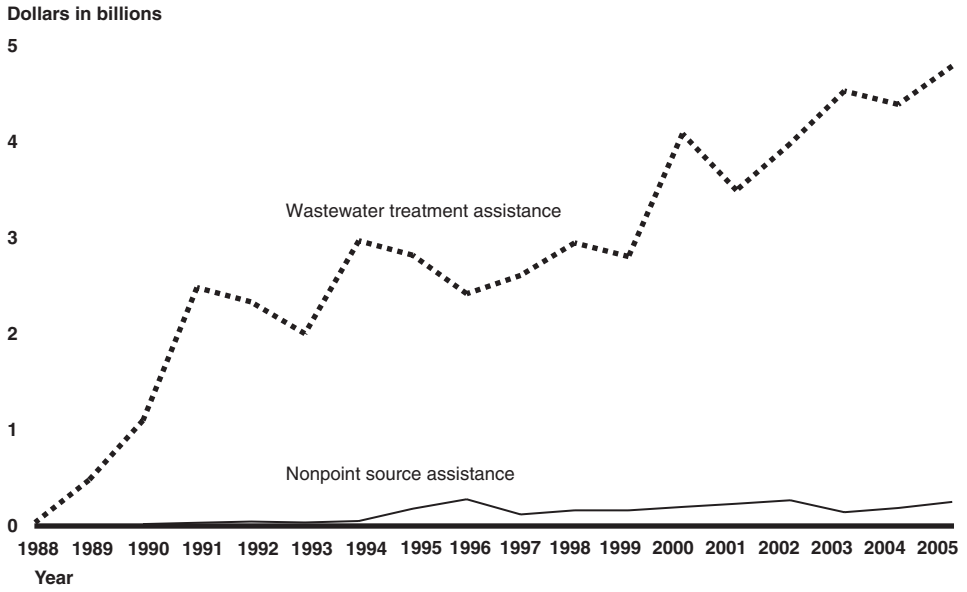
Note: Percentages may not add to 100 due to rounding.

[a]Storm Water Sewers and Recycled Water Distribution together add to less than one-half of 1 percent of CWSRF assistance for wastewater infrastructure.

Since the CWSRF's inception, the total dollar amounts that states annually provide for wastewater infrastructure and nonpoint source projects has increased. However, CWSRF support for wastewater infrastructure has increased at a greater pace than the amount for nonpoint source projects. Figure 4 shows that states have used their CWSRFs to finance wastewater

infrastructure projects since 1987 but only began to use them to support nonpoint source projects in 1990. The annual percentage of the CWSRFs states allocated to nonpoint source projects peaked in 1996 at about 10 percent.

Figure 4: CWSRF Support for Wastewater Infrastructure and Nonpoint Source Pollution Control Projects, Fiscal Years 1987 through 2005

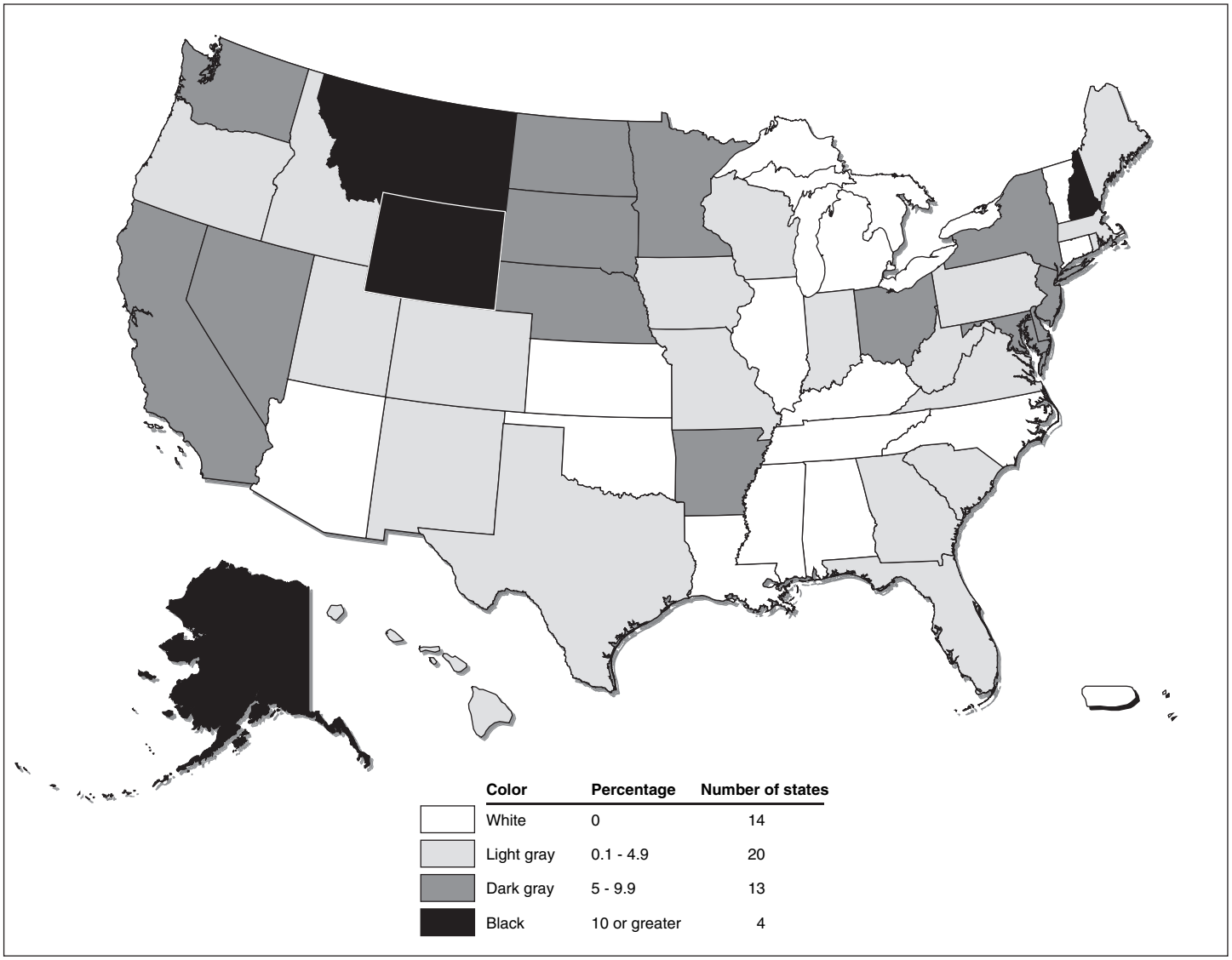


Source: EPA's National Information Management System.

Nonpoint Source Projects Represent 4 Percent of CWSRFs but Account for Over 25 Percent of All CWSRF-Supported Projects

Direct CWSRF support for nonpoint source pollution control activities represents only 4 percent (about $2 billion) of CWSRFs allocated by the states but accounts for over 25 percent of all CWSRF-supported projects because nonpoint source projects are typically less expensive than wastewater infrastructure projects. The extent to which states have used their CWSRFs to support nonpoint source projects varies. To date, 37 states have reported using some portion of their CWSRF funds to directly support nonpoint source projects. Among them, Wyoming has allocated the greatest percentage of funds to nonpoint source projects (44 percent), while New York has allocated the greatest dollar amount (over $700 million). Figure 5 illustrates the percentage of funding that all 51 programs have allocated to nonpoint source projects since the CWSRF's inception. Detailed state by state figures are provided in appendix II.

Figure 5: CWSRF Support for Nonpoint Source Projects as a Percentage of Total CWSRF Support, Fiscal Years 1987 through 2005



Source: EPA.

To be eligible for CWSRF support, a nonpoint source pollution control project must help implement a state's EPA-approved Nonpoint Source Pollution Management Plan.[11] Each state determines which nonpoint source pollution control activities are eligible for funding. Nationally, there are 11 major categories of nonpoint source pollution control projects that have received CWSRF support:

- *Agricultural Best Management Practices* include projects to reduce water pollution resulting from activities related to the production of animals and food crops.[12] Projects can include nutrient management practices for the storage and disposal of animal waste; techniques to minimize pollution related to agricultural activities such as grazing, composting, pesticide spraying, planting, harvesting, fertilizing, and tillage; and irrigation water management.

- *Individual/Decentralized Sewage Treatment* encompasses the rehabilitation or replacement of individual septic tanks or community sewage disposal systems. This category also includes the construction of collector sewers to transport waste from individual septic systems to a cluster septic tank or other decentralized facility.

- *Groundwater-Unknown Source* relates to the protection of groundwater and includes projects to protect wellheads and prevent contamination in areas where groundwater is replenished.

- *Storage Tanks* include tanks above or below ground designed to hold petroleum products or chemicals. Projects may include spill containment systems; the upgrade, rehabilitation, or removal of leaking tanks; and the treatment of contaminated soils and groundwater.

- *Sanitary Landfills* manages water pollution emanating from landfills and includes activities such as collection of leachate or on-site treatment, capping, and closure.

[11]Under the Clean Water Act, states are required to develop a Nonpoint Source Pollution Management Plan that serves as a comprehensive guide to each state's nonpoint source problems, pollution control programs, and future steps for nonpoint source pollution control and prevention.

[12]EPA tracks CWSRF expenditure data separately for nonpoint source projects related to animal production and agricultural cropland but has reported these data together as Agricultural Best Management Practices.

- *Silviculture* includes best management practices related to forestry activities such as timber harvesting, removal of streamside vegetation, road construction, and mechanical preparation for the planting of trees. Eligible activities include preharvest planning, streamside buffers, road management, and re-vegetation of disturbed areas.

- *Marina* includes water pollution control activities related to boating and freshwater marinas. Pump-out systems, oil containment booms, and efforts to minimize discharge of sewage from boats are included in this category.

- *Resource Extraction* includes pollution control activities related to mining and quarrying. Projects supported can include the construction of detention berms and the revegetation of areas affected by mining activities.

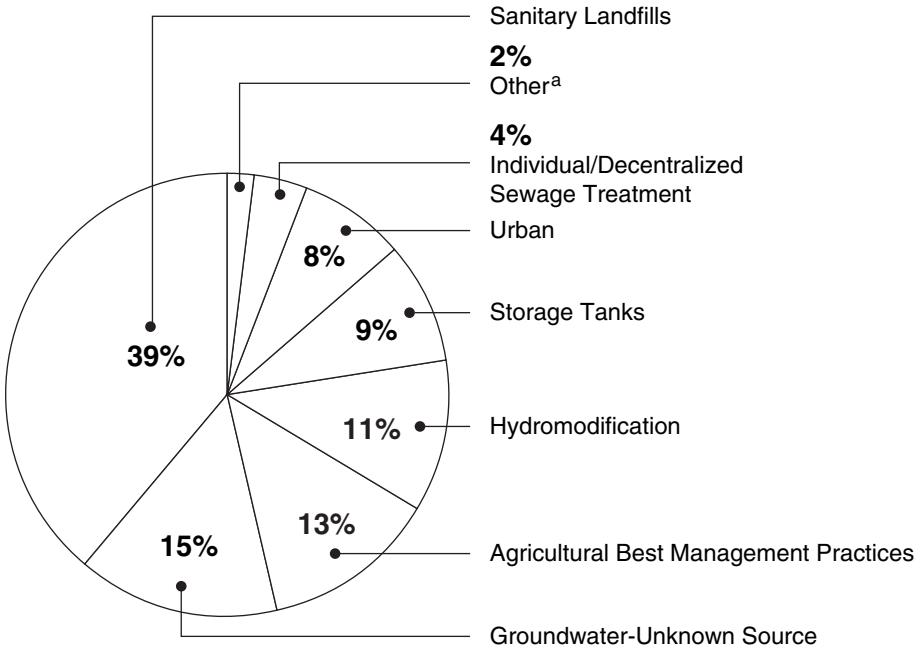
- *Brownfields* include abandoned, idle, and underused industrial sites. Eligible projects include groundwater monitoring wells, treatment of contaminated soils and groundwater, capping of contaminated areas to prevent storm water infiltration, and removal of storage tanks at brownfields.

- *Hydromodification* relates to the water channel modification, dam construction, stream bank and shoreline erosion, and wetland or riparian area protection or restoration. Examples of eligible activities include conservation easements; shore erosion control; wetland development and restoration; installation of open, vegetated drainage channels designed to detain and/or treat storm water; and bank and channel stabilization.

- *Urban* includes activities related to erosion, sedimentation, and discharge of pollutants (e.g., oil, grease, road salt, toxic chemicals) from construction sites, roads, bridges, and parking lots.

As shown in figure 6, states have provided the greatest level of nonpoint source support—almost 40 percent of all CWSRF nonpoint source dollars—to mitigate contaminated runoff from sanitary landfills.

Figure 6: CWSRF Support by Subcategory of Nonpoint Source Projects, Fiscal Years 1987 through 2005



Source: EPA's National Information Management System.

Note: Percentages may not add to 100 due to rounding.

[a]Taken together, the Silviculture, Marina, Resource Extraction, and Brownfields categories account for about 2 percent of CWSRF nonpoint source dollars.

Although sanitary landfill projects received the largest share of CWSRF nonpoint source dollars, EPA reports that agricultural best management practices account for over 55 percent of all CWSRF-supported nonpoint source projects receiving CWSRF support. Agricultural best management practices—such as constructing a manure retention pond to control pollution created by contaminated storm water runoff—are typically less expensive than other types of nonpoint source projects. EPA also reports that the construction or repair of decentralized or individualized wastewater treatment systems (i.e., septic systems) accounted for about another one-third of all CWSRF-supported nonpoint source projects.

Twelve states have reported to EPA that they have indirectly addressed nonpoint sources of pollution with projects categorized under wastewater treatment infrastructure. This may occur, for example, when a state

provides a loan to build a centralized collection system or wastewater treatment plant to replace failing individual septic systems, which EPA and the states define as a nonpoint source of water pollution. Because the solution to the nonpoint source pollution problem is technically a wastewater treatment facility, EPA considers the expenditure to be in the wastewater infrastructure category. As detailed in table 1, these 12 states have devoted at least $650 million of their collective financing for wastewater infrastructure projects to address nonpoint sources of pollution.

Table 1: States Voluntarily Reporting Use of CWSRFs to Address Nonpoint Sources of Water Pollution with a Wastewater Treatment System, Fiscal Years 1987 through 2005

Dollars in millions

State	Amount of wastewater assistance used to address nonpoint sources of pollution
Arizona	$140.6
Delaware	59.3
Indiana	39.6
Kansas	4.9
Massachusetts	12.2
Minnesota	104.9
New Mexico	0.6
New York	81.3
North Carolina	18.0
Oregon	35.5
Rhode Island	150.8
South Carolina	7.1
Total	**$654.7**

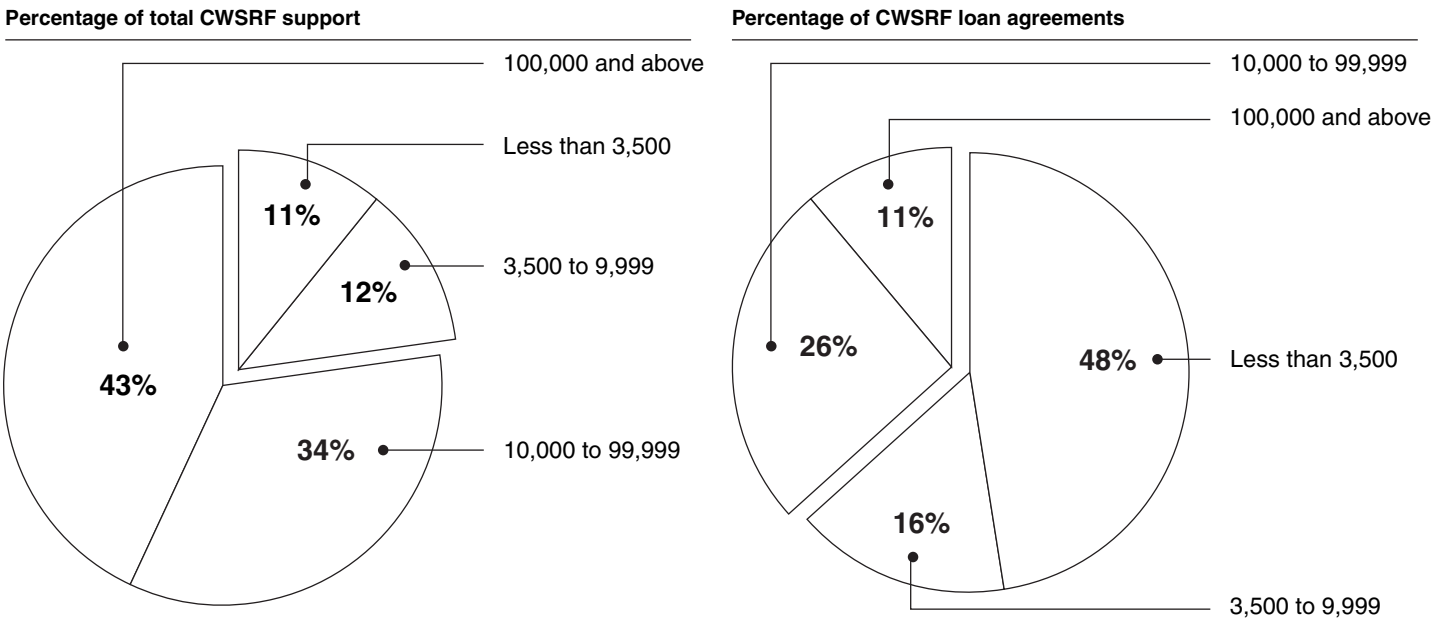
Source: EPA's National Information Management System.

Note: Numbers may not add to total due to rounding.

Smaller Communities Account for 23 Percent of CWSRF Dollars Loaned, but Over 60 Percent of All CWSRF-Supported Projects

Figure 7 shows that since the inception of the CWSRF program, small communities—defined by EPA as having less than 10,000 inhabitants—have received about 23 percent of total CWSRF dollars.[13] In contrast, over 60 percent of all CWSRF loan agreements supported projects within these smaller communities.

Figure 7: CWSRF Support by Community Size as a Percentage of Total CWSRF Support, Fiscal Years 1987 through 2005



Source: EPA's National Information Management System.

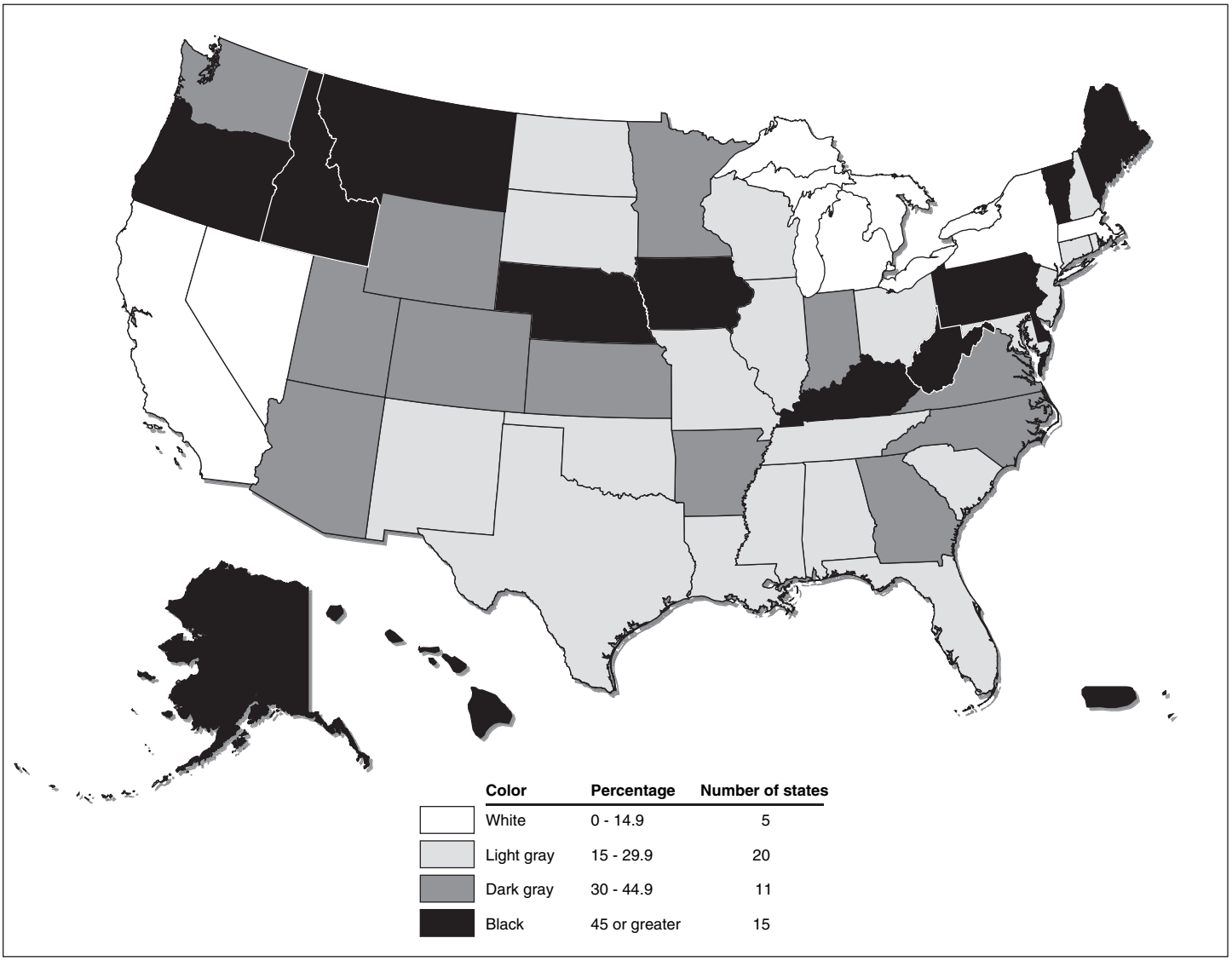
Note: Percentages may not add to 100 due to rounding. EPA reports that, as of June 30, 2005, total CWSRF financial assistance equals $52.7 billion and that the total number of CWSRF loan agreements equals 16,752. EPA does not collect data on the types of individual projects (e.g., wastewater infrastructure or nonpoint source) or type of loan agreement that each community receives.

Figure 8 shows the considerable degree to which the states vary in the extent to which their CWSRFs support small communities. It illustrates, for example, that just over half of the CWSRF programs have provided 30 percent or more of their CWSRF funds for projects in small communities. Pennsylvania has provided the greatest dollar amount ($914 million), as

[13]This compares with U.S. Census figures showing that 41 percent of the U.S. population lives in areas with fewer than 10,000 people.

well as a high percentage of loans (90 percent) to projects in small communities. At the other end of the spectrum, California has provided the lowest CWSRF dollar amount (4 percent) and loans (15 percent) for projects in small communities.

Figure 8: CWSRF Support to Small Communities as a Percentage of Total CWSRF Support, Fiscal Years 1987 through 2005



Source: EPA.

States' Allocation Strategies Reflect Diverse Clean Water Needs and CWSRF Program Goals

Our interviews with state and EPA officials suggest that the diversity states exhibit in their CWSRF spending reflects the variation in what they see as their most pressing water quality infrastructure needs, their most pressing water quality problems, and the degree to which they rely on CWSRF funds to protect smaller communities. EPA and state officials predict that, in future years, states are likely to alter their current CWSRF allocation strategies in response to growing demand and shifting clean water needs and priorities.

Some States Focus on Conventional Wastewater Problems

Some states have focused their CWSRFs on supporting the construction of wastewater treatment plants and conveyance systems. According to EPA officials, these states consider wastewater infrastructure needs their highest CWSRF priority and seek other sources of funding to support nonpoint source pollution problems and estuary management activities. In some cases, state legislation restricts the use of CWSRFs for nonpoint source projects. For example, the legislation that created Alabama's CWSRF limits the scope of the program by defining projects that receive CWSRF funds as traditional public wastewater facilities. Other states have passed legislation restricting the types of entities that can receive CWSRF loans. Nevada and Colorado, for example, have limited their CWSRF borrowers to local municipalities or similar government entities, thereby excluding private or nongovernmental entities from receiving CWSRF funds.

Even where state law allows CWSRF funds to be used for nonpoint source projects, some state CWSRF administrators have told EPA officials that they are not comfortable with using CWSRF funds for this purpose, especially when demand for funding for wastewater infrastructure projects in their states is high. For example, according to officials in EPA's New York Regional Office, large parts of Puerto Rico lack basic sewers and wastewater treatment facilities. Consequently, Puerto Rico's CWSRF has focused on these needs. Similarly, according to officials in EPA's Kansas City Regional Office, Kansas has focused on wastewater treatment projects due to high levels of borrower demand for support for these types of projects.

Some states that are willing and legally able to fund both wastewater infrastructure and nonpoint source projects have not done so because of low borrower demand for nonpoint source projects. Officials in EPA's Dallas and Atlanta Regional Offices told us that Louisiana, Kentucky, and New Mexico are willing to fund nonpoint source projects but have not done so because of a lack of borrower demand. Similarly, North Carolina

and Texas CWSRF officials explained that groups that typically implement nonpoint source projects often pursue grant money for their projects from federal, state, or private sources rather than CWSRF loans. CWSRF officials in states we visited indicated that nonpoint source borrowers are often reluctant to accept a CWSRF loan because they lack a dedicated source of revenue to repay it. While wastewater treatment plants can depend on user rates for loan repayments, nonpoint source borrowers may not have a readily available or dedicated source of revenue to repay a loan. As such, these officials suggest that the availability of grants through other federal- or state-funded programs may affect the level of demand for CWSRF loans for nonpoint source projects.

Most States Report Using Some of Their CWSRFs to Support Nonpoint Source Projects

As of June 2005, 37 states reported using some portion of their CWSRF funds to support nonpoint source projects, up from only 2 states in 1990. The considerable progress in restoring the nation's waterways since the passage of the Clean Water Act is largely attributable to significant efforts to reduce pollutant levels from point sources of pollution, which are those that contribute pollutants directly to a body of water from a pipe or other conveyance. However, EPA reports that one-third of the nation's assessed waters still do not meet water quality standards. Recognizing the considerable role of nonpoint source pollution in these standards violations, the majority of states have decided to focus at least some attention on addressing these problems with their CWSRF resources.

EPA has encouraged all states to use a watershed management approach to solving water quality problems, which according to state and EPA officials, has increased the number of states addressing nonpoint source pollution with their CWSRFs.[14] While traditional water quality programs have focused on specific sources of pollution, such as sewage discharges, or on specific water resources, such as a river segment or a wetland, a watershed management approach addresses water quality problems at the watershed level. According to officials at EPA headquarters and several regional offices, this approach to water quality management often highlights the role of nonpoint source pollution in noncompliance issues. These officials suggested that states using a watershed management approach are more likely to fund nonpoint source projects with CWSRF resources. Additionally, CWSRF officials in Ohio and Minnesota told us that developments in water quality monitoring technologies and expansion

[14]A watershed is the land area that drains water into a river system or other body of water.

of monitoring efforts have helped their states better identify nonpoint sources of pollution. According to these officials, the role of nonpoint source pollution in noncompliance has been "uncovered" over the years as they have improved monitoring efforts and as point sources of pollution—such as wastewater treatment facilities—are brought into compliance.

Some states have been highly proactive in encouraging use of CWSRF funds to support nonpoint source projects. For example, in an effort to ensure that CWSRFs address nonpoint source problems, some states have passed legislation setting aside a portion of their CWSRFs to be used exclusively for nonpoint source projects. For example, Washington state regulations require that CWSRF administrators reserve up to 20 percent of available funds for nonpoint source pollution control and comprehensive estuary conservation and management projects.

Other states have developed innovative lending approaches to overcome some of the barriers to funding nonpoint source projects with CWSRF resources. To increase the number of nonpoint source borrowers while minimizing loan transaction costs, some states pass CWSRF loan risks and loan servicing responsibilities onto third parties. These states have established pass-through lending or linked-deposit programs, whereby loans are passed through state agencies, municipalities, or local banks before reaching the borrower. Minnesota's CWSRF program, for example, works with the Minnesota Department of Agriculture to allocate a portion of its funds to counties, soil and water conservation districts, and others to help establish minirevolving loan accounts. These local units of government work with local financial institutions to provide low interest loans for projects proposed by farmers, rural landowners, and agriculture supply businesses for projects to implement, among other things, agricultural best management practices. The local units of government approve eligible projects and refer borrowers to the local financial institutions. Using CWSRF funds from the minirevolving loan account, the bank provides low-interest loans to qualified borrowers. The lending institution assumes the risk and management responsibility for the loan. Other states—such as Massachusetts and Missouri—have set up similar pass-through loan programs to address nonpoint sources of pollution with CWSRF funds.

To overcome the challenge of finding a dedicated source of repayment for nonpoint source projects, Ohio's Water Resource Restoration Sponsor Program integrates CWSRF support for nonpoint source projects into loans for wastewater treatment plants. According to Ohio CWSRF officials, communities seeking a CWSRF loan for a wastewater treatment

facility can receive a discount to the interest payments that would otherwise be due on their wastewater project loans. After the wastewater facility loan has been awarded, the amount of the interest discount is advanced to the community, which then assumes responsibility for financing the implementation of the associated nonpoint source project. In return, the community receives a reduction to its wastewater facility loan's interest rate of up to 0.2 percent. A community that participates in this program does not typically implement the nonpoint source project itself. Rather, it enters into an agreement with an implementing partner, such as a land trust or a park district. Using the interest discount funds, this partner develops and implements a nonpoint source project (such as a plan to restore and permanently protect a waterbody's aquatic habitat resources) but does not repay the CWSRF. Instead, the sponsoring community covers the cost as part if its repayment of its wastewater facility loan.

According to Ohio officials, the benefit of the state's program is that water restoration projects that may not normally receive CWSRF funding are completed with the help of the wastewater treatment plants. Based in part on the program's success, Ohio officials have decided to set aside $15 million of CWSRF resources each year for their Water Resource Restoration Sponsor Program. A few other states are in the process of establishing similar sponsorship programs.

Some States Target Borrowers in Small or Economically Disadvantaged Communities

Just as states vary in the way they allocate CWSRF resources according to water quality needs, they also vary in the extent to which they target borrowers in small or economically disadvantaged communities. Smaller communities may struggle more to raise capital for water quality infrastructure than larger communities with broader tax and rate bases. In 1992, Congress directed EPA to establish a Small Town Environmental Planning Task Force to, among other things, advise EPA on how to work better with small communities. The task force found that technical and administrative capacity is often severely limited in small towns, which often lack full-time officials and professional staff. Moreover, the task force found that small communities tend to have severely limited tax bases and budgets and, therefore, may not have the necessary credit ratings to attract capital to finance their wastewater infrastructure. In addition, infrastructure costs fall disproportionately on small towns because entry-level costs must be distributed over a smaller base.

Recognizing these challenges, some states—such as Montana, Pennsylvania, and West Virginia—use their CWSRFs to help rural, low-

income communities meet required sewage and water quality standards. In Pennsylvania, almost 90 percent of all CWSRF loan agreements and 75 percent of total funding is directed to projects in small communities. Several states have set aside a portion of their funds for CWSRF-funded projects in small or economically disadvantaged communities. For example, Oregon reserves up to 15 percent of its CWSRF to support projects in communities with populations of 5,000 or less that are facing severe water quality problems. According to EPA and state officials, some CWSRF programs have rules to protect the ability of small communities to access CWSRF funds. For example, some states such as New York and Minnesota have placed limits on the amount of CWSRF support any one borrower—such as a major metropolitan area—can receive in a given year.

A number of states offer small or economically disadvantaged communities special assistance when applying for CWSRF loans. For example, Ohio offers CWSRF loans with (1) a zero percent interest rate to communities with populations of less than 2,500 and a median household income of less than $45,000 and (2) a 1 percent interest rate to those with populations between 2,500 and 10,000 and a median household income of less than $38,000. West Virginia CWSRF administrators are able to extend repayment terms up to 40 years to qualified disadvantaged communities to help make projects more affordable. Kentucky offers special state-funded, short-term loans to small communities to help them cover expenses related to obtaining a CWSRF loan. Montana has developed special outreach and technical assistance programs to help small communities take advantage of the CWSRF program. Montana officials explained that many small communities lack the necessary administrative structures to receive a CWSRF loan or lack the technical expertise to develop competitive applications for CWSRF loans. The state has contracted with the Rural Community Assistance Partnership, a nonprofit organization, to provide technical assistance to rural and small communities to guide them through the process of developing a competitive application and set up the necessary administrative structures to receive a CWSRF loan. Officials in several small Montana communities told us that, without this technical assistance, they would not have been able to receive the CWSRF loans that were critical to the financing of their wastewater infrastructure.

Future State Allocation Strategies Will Likely Reflect Shifting Priorities

According to the EPA and state officials we interviewed, demand for CWSRF support for both point and nonpoint source projects will grow considerably in the future, and states will likely alter their CWSRF allocation strategies in response to shifting clean water needs and

priorities. Among the factors these officials cite in predicting changes in states' allocation strategies are (1) aging wastewater infrastructure needing rehabilitation or replacement; (2) population growth and redistribution; (3) changes in EPA enforcement priorities, particularly with regard to limiting sewage discharges during wet weather conditions; (4) pressure to implement EPA's TMDL program; and (5) stricter EPA and state water quality standards for temperature, nutrients, and sediments.

Officials in all 10 EPA regional offices and a number of state officials told us that the need to repair or replace aging wastewater infrastructure will be a major driver of future demand for CWSRF resources. These officials point out that many of the wastewater treatment plants and conveyances built with federal support in the early 1970s in response to the passage of the Clean Water Act are now reaching the end of their useful lives. EPA data indicate that wastewater treatment plants typically have an expected useful life of 20 to 50 years before they require expansion or rehabilitation. Wastewater conveyances such as pipes and sewers have life cycles that can range from 15 to over 100 years. In addition, some wastewater systems on the East Coast still rely on pipes that are almost 200 years old. Taking into account the need to repair or replace these aging systems, a 2002 Congressional Budget Office analysis estimated that between 2000 and 2019, $260 to $418 billion will be needed for wastewater infrastructure, while current spending is approximately $10 billion per year.[15] CBO's analysis suggests that the gap between current and needed spending could be as high as $11 billion per year.

In addition to repairing or replacing existing infrastructure, EPA officials predict that some states will face increased demand for new wastewater treatment systems in response to population growth. In addition to overall population growth, EPA also indicates that the existing U.S. population is shifting geographically, requiring rapid increases in wastewater treatment capacity in certain areas. EPA officials indicated that some states in the West—such as Utah and Nevada—and the South—such as Georgia and Florida—are already experiencing rapid population growth and considerable pressure to expand existing treatment capacity. In addition, EPA officials point out that in the near-term, some states along the Gulf Coast will have to balance the need for new growth with demand to

[15]Congressional Budget Office, *Future Investment in Drinking Water and Wastewater Infrastructure* (Washington, D.C.: May 2002).

replace or repair wastewater infrastructure that was damaged by recent hurricanes.

In response to recent EPA wet weather policies and enforcement actions, some state and EPA officials predict that a number of states will experience increased demand for CWSRF assistance to address combined sewer overflows (CSO), which are discharges of untreated wastewater from a combined sewer system. Combined sewer systems collect and transport both sanitary sewage and storm water runoff in a single-pipe system to a wastewater treatment facility. Constructed prior to the 1950s, combined sewer systems exist in primarily older, urban communities in the Northeast, Middle Atlantic, Midwest, and Northwest. An overflow typically occurs when the total wastewater and storm water flow exceeds the capacity of the system and, by design, discharges directly into a receiving water body. Pollutants in CSOs have been shown to be a major contributor to nonattainment of water quality standards and may pose significant public health and pollution threats. As such, EPA has selected these problems as national enforcement priorities. Sixty percent of the more than 9,000 combined sewer systems nationwide serve communities of fewer than 10,000 people—-the very communities that face some of the most difficulty in raising capital to address environmental infrastructure. States have already used almost $5 billion of CWSRF funds to correct CSOs, and EPA recently reported to Congress that an additional $50 billion is required nationwide. Officials in some Midwestern states—such as Michigan and Minnesota—predict that addressing CSOs will be one of the biggest drivers of demand and that funding these projects will become a higher priority in the future. According to officials in EPA's Chicago and Atlanta Regional Offices, some states facing major CSO problems—such as Indiana and Kentucky—have indicated that the CWSRF will be a primary source of funding for their long-term CSO management plans.

State and EPA officials also point out that demand for CWSRF support for nonpoint source pollution control projects is likely to grow as states begin projects to bring impaired waters into compliance with EPA's TMDL program. A TMDL is a calculation of the total maximum amount of a pollutant that a body of water can receive each day and still meet water

quality standards.[16] Water quality standards are set by states, territories, and tribes and identify the uses for each body of water such as drinking water supply, contact recreation (swimming), and aquatic life support (fishing). States generally determine if a body of water is meeting standards by comparing monitoring data with applicable state water quality criteria. If the body of water fails to meet applicable federal, state, or local water quality, then the state is required to list that water as impaired. EPA guidance provides that the state should then develop a TMDL implementation plan that specifies reductions necessary to achieve the standard and then eventually implement a cleanup plan. According to EPA guidance, the state implementation plan should specify which pollution sources will be restricted to meet water quality standards. State and EPA officials indicate that a majority of standards violations relate to nonpoint sources of pollution and, subsequently, a number of TMDL projects address nonpoint sources of water pollution. For example, Minnesota CWSRF officials told us that they believe 86 percent of the pollution in their impaired waters emanates from nonpoint sources of pollution. According to some state and EPA officials, many states are considering the CWSRF as a major source of funding, given the amount of resources and the overall costs of implementing the plans.

In a similar vein, EPA and state officials also pointed out that stricter federal, state, and local water quality standards will continue to drive up demand for CWSRF loans for both point and nonpoint source projects. For example, according to officials in EPA's Philadelphia Regional Office, stricter biological and nutrient standards in the recent Chesapeake Bay Agreement will drive demand for CWSRF loans in Mid-Atlantic states. Officials in Minnesota told us they are experiencing a surge in demand for CWSRF loans to repair or replace individual failing septic systems due to greater attention and more stringent enforcement by state and county regulators. EPA officials in EPA's Seattle Regional Office point out that efforts to protect the region's endangered salmon and bull head trout through the Endangered Species Act may force wastewater treatment

[16]Water quality standards comprise two key components—designated uses and water quality criteria. Designated uses are uses assigned to water bodies such as drinking water, contact recreation (e.g., swimming), and aquatic life support (e.g., fish populations). Water quality criteria specify pollutant limits that are intended to protect the designated uses of a water body, such as the maximum allowable concentration of a pollutant (e.g., iron) or an important physical or biological characteristic that must be met (e.g., an allowable temperature range). Water quality criteria can be quantitative ("numeric") or qualitative ("narrative"), and they can include components such as the frequency and duration of monitoring needed to determine whether the criteria are being met.

plants to upgrade their treatment efforts and local municipalities to address nonpoint sources of pollution. These officials predict that tougher temperature and sediment standards in waters receiving effluent will drive demand, especially for nonpoint source projects, in states such as Washington, Idaho, and Oregon.

EPA and the States Use Specific Financial and Environmental Measures to Evaluate Efficient and Effective Use of CWSRF Resources

EPA and the states use a uniform set of financial and environmental measures to help determine efficient and effective use of CWSRF resources. EPA and state-level officials rely on three measures to assess financial performance, including a set of national financial indicators, an annual Program Evaluation Report conducted by the cognizant EPA regional office for each state CWSRF program, and an annual independent financial audit of the state program. Efforts to measure the environmental benefits of states' CWSRFs are relatively new and generally center on EPA's recently developed electronic Environmental Benefits Reporting System.

EPA Uses Three Measures of States' CWSRF Financial Performance to Ensure Efficient and Effective Use

Since the CWSRF program's inception, all states have used similar measures to evaluate CWSRF financial performance. The first measure, EPA's National Financial Indicators, consists of five individual national financial indicators. According to an EPA headquarters official responsible for these indicators, the agency developed these indicators in conjunction with the states to provide a balanced approach to understanding the different objectives of CWSRF financial performance. According to a senior EPA headquarters official, CWSRF project-summary information, reported by the states in the National Information Management System, is used to calculate the indicators on a state by state and national level. The indicators include the following:

- *Return on Federal Investment* estimates how many dollars in environmental investment have been generated for every federal dollar spent through the program.
- *Ratio of Executed Loans to Funds Available for Loans* (often referred to as the "pace" at which loans are made) measures the cumulative dollar amount of executed loan agreements relative to the cumulative dollar amount of funds available for loans. It is one indicator of how quickly funds are made available to finance CWSRF eligible projects.
- *Ratio of CWSRF Loan Disbursement to Executed Loans* measures the speed at which projects are proceeding toward completion by comparing

the cumulative dollar amount of CWSRF loan disbursements with the cumulative dollar amount of executed loan agreements and expressing this as a percentage.

- *Estimated Additional CWSRF Loans Made Due to Leveraging* estimates the dollar amount of additional projects that have been funded, that otherwise might not have been, had leveraged bonds not been issued. This is done by comparing the cumulative amount of CWSRF executed loans with the cumulative amount of funds available after subtracting the net funds provided by issuing bonds.

- *Sustainability of the Fund* gauges how well the CWSRFs are maintaining their invested or contributed capital, without making adjustments for loss of purchasing power due to inflation.

EPA's second measure to evaluate effective and efficient use of CWSRF dollars is its annual review and accompanying written PERs conducted by EPA's regional offices of each state program. According to the EPA's annual review guidance, the review is intended to, among other things (1) evaluate the success of the state's performance in achieving goals and objectives identified in its Intended Use Plan (which identifies the intended uses of the amounts available to its CWSRF) and the state's Annual Report (which describes how the state has met the goals and objectives of the previous fiscal year as identified by the Intended Use Plan), (2) determine how the CWSRF is achieving the intent of the Clean Water Act, (3) assess the financial status and performance of the fund, and (4) evaluate progress in identifying the environmental and public health benefits of the program. The review, based on the information collection and evaluation process, ends with the issuance of the PER.

EPA's third measure is the annual financial audit. The Clean Water Act requires the 51 state-level CWSRF programs to undergo these audits to determine whether the CWSRF financial statements are presented fairly in all material respects in conformity with Generally Accepted Accounting Principles (GAAP) and whether the state has complied with the laws, regulations, and the provisions of CWSRF capitalization grants.[17] The

[17]More specifically, the product of the audit is expected to include (1) financial statements with an opinion (or disclaimer of opinion) as to whether the CWSRF financial statements are presented fairly in all material respects in conformity with GAAP; (2) a report on internal controls related to the CWSRF financial statements that describes the scope of testing of internal controls and the results of tests; and (3) a report on compliance that includes an opinion as to whether the state has complied in all material respects with laws, regulations, and the provisions of the CWSRF capitalization grants.

audit, conducted under the Single Audit Act, focuses on the state's overall CWSRF program, rather than individual capitalization grants awarded to states by EPA. In addition, independent audits are conducted in 43 states by auditors contracted by the state; EPA's Office of Inspector General currently conducts audits for the remaining eight programs.[18]

EPA and the States Have Recently Started Reporting Environmental Benefits of CWSRF-Funded Projects as a Measure of Efficient and Effective Use of Program Resources

Quantifying an environmental program's financial transactions is an inherently more straightforward exercise than quantifying its environmental benefits. Nonetheless, the EPA Office of Water's Environmental Indicator Task Force has been developing environmental indicators for the CWSRF since at least 1991. This task force, comprised of federal and state officials, identified obstacles to measuring benefits and shared ideas for solutions. It attempted to develop key environmental indicators, such as the number of pounds of pollutants removed from wastewater treatment plant effluent. However, a number of obstacles prevented collection of comprehensive environmental benefits measurements—most notably (1) a lack of baseline environmental data and (2) technical difficulties in attributing benefits specifically to the CWSRF. EPA headquarters officials also explained that environmental monitoring activities are not an allowable use of CWSRF funds, even as an administrative expense.[19]

Despite these complications, the requirements of the Government Performance and Results Act and EPA's own Strategic Plan have long recognized the need for outcome-based measures for the agency's programs. Moreover, according to EPA headquarters officials, recent reviews by the Office of Management and Budget (OMB) and EPA's Office of Inspector General provided further impetus to quantify environmental outcomes of the CWSRF. In particular, a 2004 EPA Office of Inspector General report criticized the program for not developing a comprehensive plan for measuring results and recommended that such a plan be developed. In a similar vein, OMB's Program Assessment Rating Tool

[18]According to EPA headquarters officials, starting in fiscal year 2006, the EPA Inspector General will no longer perform audits for these eight CWSRF programs. Instead, EPA headquarters officials will likely conduct these audits using a mission contractor.

[19]According to EPA headquarters officials, environmental monitoring equipment associated with a CWSRF-funded project is an allowable CWSRF expense.

(PART)[20] review of the CWSRF cited its inability to link dollar expenditures with environmental improvements.

In response, representatives of a state-EPA work group and of the Association of State and Interstate Water Pollution Control Administrators (assisted by an EPA contractor) developed the Environmental Benefits Reporting System in July 2005. This system strives to capture anticipated environmental benefits that are expected to result from CWSRF-funded projects. The system does not require any environmental monitoring, focusing instead on anticipated environmental benefits. According to EPA headquarters officials, all 51 programs have agreed to use the system to report the environmental benefits of their CWSRF-funded projects and must report on all loans made from capitalization grants received after January 1, 2005.

By July 2005, states were able to enter data about anticipated environmental improvements to bodies of water resulting from CWSRF-funded projects. Unlike the National Information Management System data, which is submitted by the states each year in the aggregate, the environmental benefits data is submitted on a per-project basis, at the time of loan execution. As of February 2006, 42 states have begun using it to report CWSRF-supported projects, including nonpoint source projects.

Some states are attempting to go beyond EPA's requirements by gathering data on actual environmental benefits from their CWSRF-funded projects, including nonpoint source projects. Washington State, for example, recently required applicants to monitor the environmental impact of all of its CWSRF projects 3 to 5 years after project completion. Between 2001 and 2003, Oklahoma conducted water quality monitoring on 19 receiving streams, both upstream and downstream of CWSRF-funded improvements to remove pollutants and increase dissolved oxygen in effluent entering the streams. However, the study could not determine the extent to which these particular projects improved overall water quality in the streams, largely because baseline environmental data were unavailable.

Other states are going beyond the minimal requirements of the EPA system by estimating the degree to which pollution is prevented by

[20]According to OMB, the PART was developed to assess and improve program performance so that the federal government can achieve better results. A PART review helps identify a program's strengths and weaknesses to inform funding and management decisions aimed at making the program more effective.

specific CWSRF-funded projects. Delaware CWSRF officials, for example, explained that since 2000, they have used estimates of the amount of pollutants a proposed CWSRF project would remove from the waste stream to develop the state's Project Priority List. As another example, according to EPA's Seattle regional officials, Oregon has begun to award additional points to CWSRF project applicants (thus increasing the priority of the project) if they agree to conduct their own environmental monitoring and evaluation.

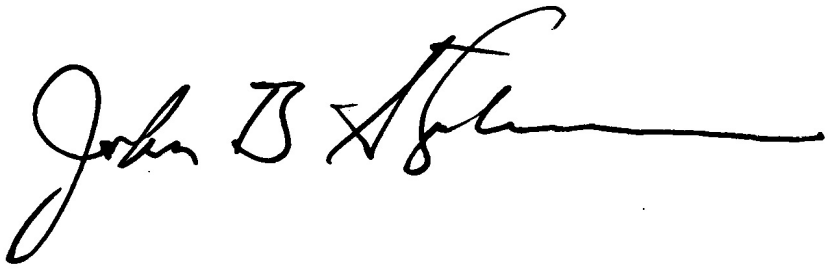
As EPA and the states have long known, quantifying environmental programs' benefits with any degree of precision is a challenging exercise. Nonetheless, their efforts to do so regarding the CWSRF are particularly important, given the sizable investment of both federal and state dollars in the program.

Agency Comments and Our Evaluation

EPA reviewed a draft of this report and provided technical comments, which have been fully incorporated.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution of this report until 30 days from the report date. At that time, we will send copies of this report to appropriate congressional committees; interested Members of Congress; the Administrator, Environmental Protection Agency; and other interested parties. We also will make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

Should you or your staff need further information, please contact me at (202) 512-3841 or stephensonj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.



John B. Stephenson
Director, Natural Resources and Environment

Appendix I: Scope and Methodology

GAO's review focused on the following questions:

- To what extent are states currently using their Clean Water State Revolving Funds (CWSRF) to support conventional wastewater treatment plant construction versus other qualifying expenses?
- What strategies do states use to allocate their CWSRF dollars among qualifying expenses?
- What measures do states use to ensure that their allocation strategies are resulting in the most efficient and effective use of their CWSRFs?

To determine the extent to which states are currently using their CWSRFs to support conventional wastewater infrastructure versus other qualifying expenses, we summarized data from the Environmental Protection Agency's (EPA) National Information Management System (NIMS), the database EPA uses to track expenditures for all 51 CWSRF programs. To assess the reliability of the NIMS data, we interviewed knowledgeable EPA officials regarding EPA's procedures for collecting NIMS data from states and monitoring the quality of data submitted by states. We also reviewed EPA-issued guidance for states inputting data to the NIMS database. Based on these interviews and guidance we determined that the data about the usage of CWSRF dollars were sufficiently reliable for the purposes of this report. Moreover, CWSRF programs must comply with the Single Audit Act and Generally Accepted Accounting Principles (GAAP) and undergo independent financial audits. However, we determined that data about the number of CWSRF loan agreements were of less certain reliability to identify the exact percentage of loan agreements between qualifying expenses, given that states vary in the way that they account for the number of loan agreements. For example, states do not use common standards to report the numbers of projects supported by a loan agreement, such as the number of projects that are point source versus nonpoint source in nature. Therefore, in figure 2, we reported data about the number of loan agreements with appropriate caveats.

To examine the strategies states use to allocate their CWSRF dollars among qualifying expenses, we interviewed EPA and state-level agency officials and reviewed annual reports and other official EPA and state-level documents. These interviews included officials at EPA headquarters, in all 10 EPA regional offices, and select state-level agency officials. We conducted field visits to Delaware, Minnesota, Montana, North Carolina, Ohio, Texas, and Washington to obtain detailed information about CWSRF

allocation strategies. We selected the states using a number of factors, including the following:

- geographic diversity, to accommodate variation in water quality issues;
- diversity of total amount of CWSRF support;
- diversity in CWSRF-supported projects to include states that do and do not support nonpoint source projects with CWSRF dollars and states that support varying or unique types of wastewater or nonpoint source projects; and
- a balance of states with and without an Integrated Project Priority Setting System.

Balancing these criteria, our selected states allowed us to make the following field visits:

- seven states in 6 of the 10 EPA regions;
- the second largest program (Texas) and the second smallest (Delaware);
- five states that supported nonpoint source projects, to varying degrees; and
- four states with an Integrated Project Priority Setting System and three states with a traditional project prioritization system.

These field visits and the documents provided by state-level officials allowed us to include information on a broad range of criteria states use to prioritize projects and determine funding. During these field visits, we conducted interviews with state-level CWSRF program officials and selected recipients of CWSRF loans. To gather information on additional states, we conducted semistructured phone interviews with EPA officials from all 10 regional offices, and we followed up with selected state-level CWSRF officials to discuss allocation strategies and other aspects of their programs. We used these interviews to identify the role the EPA regional offices may have in shaping the state-level CWSRF programs and to gather information on regional trends and EPA initiatives regarding the CWSRF. We also reviewed each state's most recent EPA-conducted annual CWSRF Program Evaluation Review.

To examine how states ensure that their allocation strategies result in the most efficient and effective use of their CWSRFs, we interviewed EPA and state officials about the financial and environmental measures they use to assess CWSRF performance. The examination of the most recent Program Evaluation Review also provided information on the financial and program performance of each state's CWSRF. In addition, we reviewed EPA's electronic CWSRF Environmental Benefits Reporting System by interviewing the contractor that designed it and other knowledgeable EPA and state-level officials regarding the process and mechanisms that states use to input data.

We conducted our work between July 2005 and April 2006 in accordance with generally accepted government auditing standards.

Appendix II: Selected Clean Water State Revolving Fund Financial Data

The following tables (tables 2-6) and figure (fig. 9) present selected Clean Water State Revolving Fund (CWSRF) financial data.

Table 2: Clean Water State Revolving Fund for Wastewater Treatment, Nonpoint Source, and Estuary Projects, by State, Fiscal Years 1987 through 2005

Dollars in millions

State	Total assistance	Wastewater treatment	Nonpoint source	Estuaries
U.S. total	**$52,703.7**	**$4,9951.1**	**$2,060.8**	**$0**
Alabama	$772.8	$772.8	$0	$0
Alaska	198.3	152.2	46	0
Arizona	580.4	580.4	0	0
Arkansas	345.5	327.9	17.5	0
California	3,044.2	2,184.1	230.2	0
Colorado	616.7	611.4	5.3	0
Connecticut	956.6	956.6	0	0
Delaware	157.5	146.3	11.2	0
Florida	2,035.3	2,018.8	16.5	0
Georgia	647.2	639.3	7.9	0
Hawaii	183	179.1	3.9	0
Idaho	225.8	223.1	2.7	0
Illinois	1,732.6	1,732.6	0	0
Indiana	1,374.6	1,373.5	1.1	0
Iowa	439.9	437.3	2.6	0
Kansas	724.7	724.7	0	0
Kentucky	463.2	463.2	0	0
Louisiana	407.9	407.9	0	0
Maine	376.4	369.6	6.8	0
Maryland	949.3	853.2	96.1	0
Massachusetts	3,131.8	3,079.6	52.2	0
Michigan	2,149.9	2,149.9	0	0
Minnesota	1,586.9	1,479.5	107.4	0
Mississippi	420	420	0	0
Missouri	1,429.3	1,418.2	11.1	0
Montana	189.6	159.6	30	0
Nebraska	223.3	210.4	12.8	0
Nevada	251.9	239.9	12	0
New Hampshire	382.8	284	98.8	0

Dollars in millions

State	Total assistance	Wastewater treatment	Nonpoint source	Estuaries
New Jersey	1,969.7	1,855.7	113.9	0
New Mexico	142.2	142.1	0.1	0
New York	7,942.7	6,512.2	738.7	0
North Carolina	772.5	772.5	0	0
North Dakota	150	142	7.9	0
Ohio	3,233.9	3,067.5	166.4	0
Oklahoma	449.2	449.2	0	0
Oregon	528	514.4	13.6	0
Pennsylvania	1,228.7	1,217.9	10.8	0
Puerto Rico	298.6	298.6	0	0
Rhode Island	634.7	623.9	10.8	0
South Carolina	520.1	512	8.1	0
South Dakota	203.8	192	11.8	0
Tennessee	685	685	0	0
Texas	3,700.1	3,698.2	1.9	0
Utah	233.6	232.2	1.3	0
Vermont	122.1	122.1	0	0
Virginia	1,234.7	1,213.1	21.7	0
Washington	741.9	683.9	58	0
West Virginia	478.9	473.3	5.6	0
Wisconsin	1,196	1,184.3	11.7	0
Wyoming	$240	$133.8	$106.2	$0

Source: EPA's National Information Management System.

Note: Total amounts may not add to the sum of wastewater treatment, nonpoint source, and estuaries assistance categories due to amounts not allocated between categories.

Table 3: Clean Water State Revolving Fund Assistance by Community Size, Fiscal Years 1987 through 2005

Dollars in millions

State	Total CWSRF assistance	Population less than 3,500	Population 3,500 to 9,999	Population 10,000 to 99,999	Population 100,000 and above
U.S. total	**$52,703.7**	**$5,539.5**	**$6,564.2**	**$17,608.8**	**$22,919.2**
Alabama	$772.8	$30.8	$81.2	$413.7	$247.1
Alaska	198.3	14.4	75.1	24	84.8
Arizona	580.4	62.1	135.3	258.4	124.6
Arkansas	345.5	47.3	76.1	153.7	68.4
California	3,044.2	72.2	72.2	952.6	1,947.2
Colorado	616.7	106.4	99.6	291.6	119
Connecticut	956.6	45.7	162.4	542.7	205.9
Delaware	157.5	45.1	50.1	62.4	0
Florida	2,035.3	91.4	252.2	785.5	906.1
Georgia	647.2	62.3	153.5	304.1	127.3
Hawaii	183	67	14.6	97.5	3.9
Idaho	225.8	54.6	48.3	87.9	35
Illinois	1,732.6	120.6	208.8	688.5	714.7
Indiana	1,374.6	238.9	209.9	452.3	473.5
Iowa	439.9	137	153	95.9	54
Kansas	724.7	189.3	124	273.9	137.5
Kentucky	463.2	78.2	128.1	226.3	30.6
Louisiana	407.9	10.2	49.5	217.2	131
Maine	376.4	54.7	156.3	165.3	0
Maryland	949.3	65.5	89.1	208.9	585.8
Massachusetts	3,131.8	71.6	257.6	1,567.8	1,234.9
Michigan	2,149.9	112.4	155.9	786.9	1,094.8
Minnesota	1,586.9	302.7	189.9	220.8	873.6
Mississippi	420	48.5	49.5	292.2	29.7
Missouri	1,429.3	128	215.8	299.5	785.9
Montana	189.6	84.5	23.4	81.7	0
Nebraska	223.3	80.2	51.3	40.7	51.1
Nevada	251.9	13.3	23.8	62.9	151.8
New Hampshire	382.8	21.3	49	213.1	99.4
New Jersey	1,969.7	123	199.7	921.4	725.6
New Mexico	142.2	5	28	65.2	44.1

Dollars in millions

State	Total CWSRF assistance	Population less than 3,500	Population 3,500 to 9,999	Population 10,000 to 99,999	Population 100,000 and above
New York	7,942.7	405.4	255.5	1,092	6,189.7
North Carolina	772.5	91.9	142.7	463.1	74.8
North Dakota	150	37.9	2.1	109.9	0.1
Ohio	3,233.9	484.1	358.1	987.1	1,404.7
Oklahoma	449.2	49.9	52.2	219.3	127.7
Oregon	528	71.3	190	203	63.7
Pennsylvania	1,228.7	566.7	346.8	304	10.5
Puerto Rico	298.6	96.3	41	81.4	79.9
Rhode Island	634.7	51	52.8	161.4	369.5
South Carolina	520.1	21	93.6	351.8	53.7
South Dakota	203.8	40	14.1	82.1	67.6
Tennessee	685	40.3	118.3	276.8	249.6
Texas	3,700.1	234.1	539.1	975	1,951.8
Utah	233.6	42.1	47.4	81.1	63
Vermont	122.1	30.5	51.6	40	0
Virginia	1,234.7	180.4	187.6	464.6	402.1
Washington	741.9	149.7	132.6	272.9	186.8
West Virginia	478.9	158.6	173.7	146.6	0
Wisconsin	1,196	166.2	126.9	381.3	521.7
Wyoming	$240	$37.8	$54.9	$132.3	$15.1

Source: EPA's National Information Management System.

Note: Numbers may not add to total due to rounding.

Table 4: Clean Water State Revolving Fund National Financial Indicators, Fiscal Years 1987 through 2005

Dollars in millions

State	Project disbursements as a percentage of cash draws	Assistance provided as a percentage of funds available	Project disbursements as a percentage of assistance provided	Sustainability/ retained earnings
U.S. total	**212%**	**95%**	**85%**	**$4,314.0**
States that have leveraged				
Alabama	305%	95%	88%	$35.3
Arizona	277	112	72	4.6
Arkansas	187	91	81	27.4
California	178	94	91	396.0
Colorado	313	93	85	14.0
Connecticut	276	98	89	28.9
Florida	195	107	72	276.5
Illinois	156	92	93	196.0
Indiana	187	81	77	41.2
Iowa	151	80	91	41.4
Kansas	315	104	85	-11.3
Maine	210	93	92	32.1
Maryland	163	92	83	136.0
Massachusetts	309	116	83	292.0
Michigan	195	103	86	-140.6
Minnesota	373	98	97	100.6
Missouri	233	83	94	75.2
Nevada	221	91	73	13.7
New Jersey	206	71	79	418.7
New York	323	103	100	219.6
North Dakota	139	64	98	19.5
Ohio	193	102	67	91.8
Oklahoma	229	84	86	30.7
Rhode Island	299	129	69	7.9
South Dakota	159	98	71	23.4
Texas	294	94	86	237.2
Virginia	209	85	86	208.6

Dollars in millions

State	Project disbursements as a percentage of cash draws	Assistance provided as a percentage of funds available	Project disbursements as a percentage of assistance provided	Sustainability/ retained earnings
States that have not leveraged				
Alaska	116	81	80	31.2
Delaware	118	98	68	9.7
Georgia	115	79	78	147.8
Hawaii	142	54	99	52.3
Idaho	143	90	69	45.2
Kentucky	130	86	74	79.5
Louisiana	142	89	83	42.9
Mississippi	149	100	76	75.9
Montana	167	98	97	6.9
Nebraska	161	91	82	18.8
New Hampshire	166	100	72	33.0
New Mexico	123	70	89	33.7
North Carolina	148	97	76	122.5
Oregon	159	108	75	61.1
Pennsylvania	140	88	89	129.6
Puerto Rico	126	78	56	21.4
South Carolina	166	93	84	123.4
Tennessee	152	90	74	150.7
Utah	185	100	96	20.1
Vermont	123	88	94	2.1
Washington	171	100	77	102.4
West Virginia	129	93	91	29.9
Wisconsin	171	109	85	147.8
Wyoming	170%	91%	68%	$36.7

Source: EPA's National Information Management System.

Note: Numbers may not add to totals due to rounding.

Table 5: Clean Water State Revolving Funds Available for Projects, Fiscal Years 1987 through 2005

Dollars in millions

	Federal capitalization	State contributions	Leveraged bonds	Gross loan principal repayments	Gross loan interest payments	Gross investment earnings	SRF funds available for projects
U.S. total	**$23,251.5**	**$4,806**	**$23,424.4**	**$13,187.9**	**$7,459.6**	**$4,955.7**	**$55,266.2**
Alabama	$249	$107.3	$587.1	$224.2	$176.4	$165.5	$812.3
Alaska	137.7	27.8	0	54	17.5	21.7	245.2
Arizona	158.6	40.5	276	115.8	49.1	50.4	518.6
Arkansas	162.8	31	116.9	97.6	59.6	36.5	378.7
California	1,709.8	309.4	298.9	649.3	306.1	95.6	3,229.5
Colorado	169.3	39.3	557	145.7	76.7	111.1	660.6
Connecticut	327.2	103.9	800.4	291.2	110.8	263.8	980.5
Delaware	107.2	21.4	0	26.3	5.6	4.1	160.3
Florida	844.1	174.3	150.7	528.6	209.4	81.6	1911
Georgia	450.1	88.8	0	161.1	93.1	54.6	821.3
Hawaii	169.8	662.9	0	61.6	28.6	23.7	339.8
Idaho	109	21.8	0	79.2	30.9	14.3	250.8
Illinois	1,028.4	188.8	189.5	418.6	142.5	69.7	1,881.9
Indiana	557.6	115.5	1,301.2	168.2	108.4	263.1	1,688
Iowa	283.3	53.1	186.5	139.3	82.9	115.1	547.4
Kansas	211.4	43.1	403.5	137.3	78.8	54.4	695.4
Kentucky	304.8	63	0	103.4	51.6	27.9	538.5
Louisiana	249.5	50.3	0	127.8	50.3	16.6	460.4
Maine	177.3	37.8	97.3	117.6	58.5	23	404.7
Maryland	544.2	102.4	160.9	234.1	134.8	104.8	1,027.7
Massachusetts	831.1	171	2,747.9	490.9	616.7	421	2,705
Michigan	1,023.1	205	1967	387.5	187.5	314.9	2,079.7
Minnesota	434.1	93.5	999	479.5	255.2	189.3	1,625.6
Mississippi	225.1	45.7	0	84	56.9	19	421.7
Missouri	625.7	121.9	1,400.5	489.2	338	65.3	1,713.8
Montana	114	33.7	0	46.9	14.1	6.9	194.2
Nebraska	119.7	24.5	0	87.6	27.6	15.7	245.8
Nevada	108.7	20.8	104.7	42.5	34.2	11.3	278.3
New Hampshire	226.3	47.4	0	83.6	25.4	7.5	381.2
New Jersey	1,048.8	220.6	950.1	605.1	358.7	282.6	2,762.2
New Mexico	113	27	0	34	20.3	13.3	203.1
New York	2,574.7	515	6,318.1	2,374.1	1,355.5	1,106.8	7,694.8

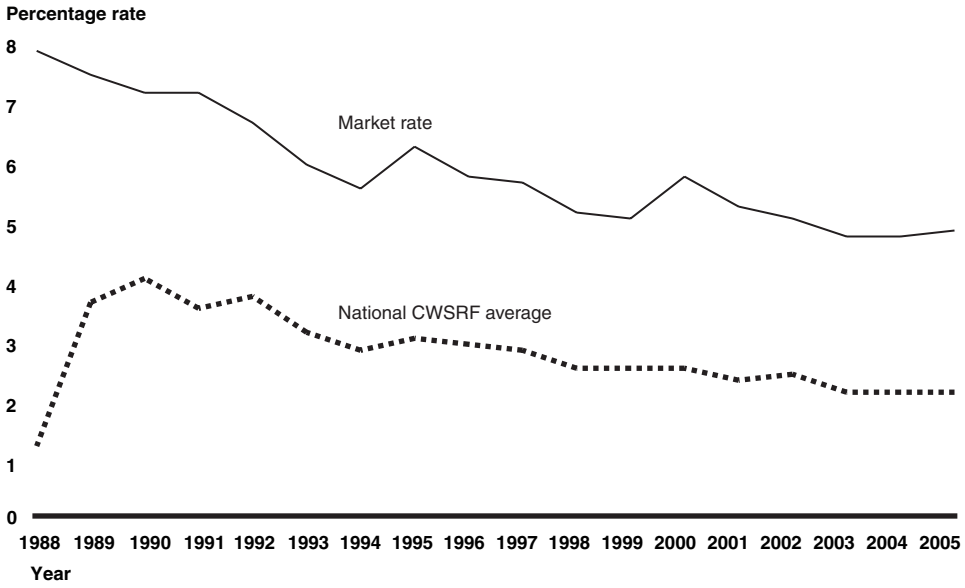
Dollars in millions

	Federal capitalization	State contributions	Leveraged bonds	Gross loan principal repayments	Gross loan interest payments	Gross investment earnings	SRF funds available for projects
North Carolina	424.6	88.8	0	177.1	81.9	40.5	796
North Dakota	102.4	24.8	75.3	41.2	19.9	45.2	233.2
Ohio	1,300.2	270.4	1,173.3	524.8	391.9	181.7	3,164.3
Oklahoma	178.4	41.3	146	219.9	22.6	31.7	536.1
Oregon	263.5	54.6	0	121.1	57.8	21.4	489.8
Pennsylvania	894	181	0	292.2	76.8	52.8	1,403.6
Puerto Rico	287.9	57.6	0	37.1	16.4	5	381.5
Rhode Island	149.7	29.9	416.3	67	41	52.8	493.1
South Carolina	265.9	53.2	0	123.8	81.9	41.5	562.3
South Dakota	114	22.7	4.5	64.4	21.6	24.4	207.3
Tennessee	375.3	78.7	0	174.7	110	40.7	764.4
Texas	1,220.9	248.3	1,615.1	1,236	942.7	137.6	3,936.1
Utah	135.4	24.5	0	58.8	10.1	10	233.4
Vermont	103.6	20.7	0	15.9	0	2.1	138.1
Virginia	552.9	110.8	380.7	315.6	169.7	102.7	1,451.1
Washington	388.1	77.6	0	189	77.7	24.7	741.7
West Virginia	347.1	69.4	0	81.5	13.4	16.5	514.1
Wisconsin	605.5	119.3	0	275.2	154.2	44.9	1,100
Wyoming	$119.8	$24	$0	$86.7	$8.1	$28.6	$262.4

Source: EPA's National Information Management System.

Note: Numbers may not add to totals due to rounding.

Figure 9: Annual Average Interest Rates for the Clean Water State Revolving Fund Compared with Annual Average Market Interest Rates



Source: EPA's National Information Management System.

Note: The market rate based on the Bond Buyer index for 20-year general obligation (GO) bonds with a rating equivalent to Moody's Aa and Standard and Poor's AA-minus. Data is the average of the reported weekly Bond Buyer 20-bond GO index for each fiscal year ending June 30.

Table 6: Assistance Provided Through the Clean Water State Revolving Fund Program and Other State Funded Clean Water and Loan Grant Programs, Fiscal Years 1987 through 2005

Dollars in millions

	CWSRF program	State-funded loans	State-funded grants
U.S. total	**$52,703.7**		
Reported total		**$3,865.3**	**$4,041.5**
Alabama	$772.8	$0	$0
Alaska	198.3	0	129.9
Arizona	580.4	NA	1.2
Arkansas	345.5	51.4	3
California	3,044.2	67.6	116.8
Colorado	616.7	48.7	30.4
Connecticut	956.6	88.7	350.9
Delaware	157.5	4.5	35.4
Florida	2,035.3	0	148.3
Georgia	647.2	68.2	0
Hawaii	183	44.8	18.5
Idaho	225.8	3.5	26.3
Illinois	1,732.6	0	489.5
Indiana	1,374.6	23.8	54.7
Iowa	439.9	0	0
Kansas	724.7	0	0
Kentucky	463.2	94	36.9
Louisiana	407.9	0	0
Maine	376.4	196.5	89.7
Maryland	949.3	0	303.6
Massachusetts	3,131.8	42.1	0
Michigan	2,149.9	2	0
Minnesota	1,586.9	0	194
Mississippi	420	1.5	0
Missouri	1,429.3	2.3	97.1
Montana	189.6	0	0
Nebraska	223.3	0	0
Nevada	251.9	0	0
New Hampshire	382.8	0	173.5
New Jersey	1,969.7	369.3	0
New Mexico	142.2	27.6	63.4

Dollars in millions			
	CWSRF program	**State-funded loans**	**State-funded grants**
New York	7,942.7	NA	NA
North Carolina	772.5	62.9	228.9
North Dakota	150	0	0
Ohio	3,233.9	625.8	319
Oklahoma	449.2	112	19.2
Oregon	528	NA	NA
Pennsylvania	1,228.7	426.9	48.6
Puerto Rico	298.6	0	0
Rhode Island	634.7	58.1	37.4
South Carolina	520.1	NA	NA
South Dakota	203.8	0	NA
Tennessee	685	0	0
Texas	3,700.1	225	0
Utah	233.6	54.2	22.2
Vermont	122.1	0.7	NA
Virginia	1,234.7	0	112
Washington	741.9	3.1	591.2
West Virginia	478.9	248.1	52.2
Wisconsin	1,196	912	247.5
Wyoming	$240	$0	$0

Legend

NA=data not available

Source: EPA's National Information Management System.

Note: Numbers may not add to totals due to rounding.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the individual named above; Steven Elstein, Assistant Director; Mark Braza; Greg Marchand; Tim Minelli; Justin L. Monroe; Jonathan G. Nash; Alison O'Neill; and Amber Simco made key contributions to this report.

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