

Investing in a Sustainable Future

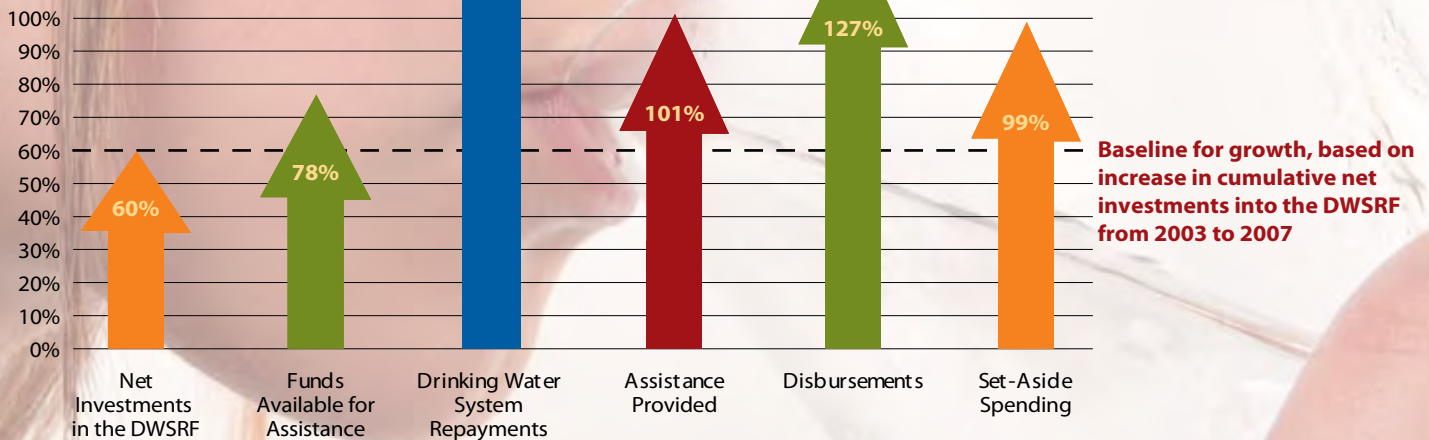
2007 ANNUAL REPORT

10TH ANNIVERSARY

2007 Highlights

For the Drinking Water State Revolving Fund (DWSRF) program, 2007 was yet another year of strong growth. The DWSRF program continued its trend of acceleration and financial performance in several key areas indicates that the DWSRF is growing at an even faster pace than contributions from federal and state governments. Exhibit 1 summarizes the cumulative result of these successes over the past 5 years (2003-2007).

Exhibit 1: Cumulative Growth from 2003 to 2007



- **Net Investments in the DWSRF:** Annual federal allocations of about \$850 million and state matches from 2003 to 2007 have increased cumulative investments by 60%. This increase forms the baseline for comparison.
- **Funds Available for Assistance:** This 78% increase was fueled by state leveraging and principal and interest payments, which show the power of the program to greatly multiply federal investments.
- **Drinking Water System Repayments:** The recycled revenue stream increased by an astounding 304%.
- **Assistance Provided:** Assistance to drinking water systems more than doubled.
- **Disbursements:** Draws on loan agreements by drinking water systems increased by 127%, due to the increasing pace of construction activity, delivering increased public health protection.
- **Set-Aside Spending:** States nearly doubled their set-aside spending, providing critical support to programs ensuring sustainable public health protection and further expanding the impact of the DWSRF beyond those drinking water systems receiving loans.



America's Public Water Systems: At-a-Glance

Every day, hundreds of millions of Americans consume drinking water supplied by more than 155,000 public drinking water systems (PWSs). PWS operators and managers work tirelessly to ensure the safety of their product and the reliability of their service. The DWSRF program, a 10-year old partnership between the U.S. Environmental Protection Agency (EPA) and each state, has become the primary public financing source for these utilities, enabling them to invest in infrastructure improvements that are critical to public health protection. The result is sustained public health protection for millions of Americans today and for generations to come.

PWS Size	Number of PWSs	People Served*
Small (<10,000 served)	146,508	39,574,939
Medium (10,000-50,000)	5,044	29,128,528
Large (50,001-100,000)	3,739	106,154,234
Very Large (>100,000)	402	131,679,655
Total	155,693	306, 537,356

*Some individuals are served by multiple PWSs.

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From the

Assistant Administrator



Benjamin H. Grumbles
Office of Water

I am pleased to present the Drinking Water State Revolving Fund's (DWSRF's) 2007 Annual Report. The DWSRF is now a \$14.4 billion federal/state partnership focused on protecting human health by helping utilities finance infrastructure to sustainably provide safe drinking water to Americans. This report highlights the 10th anniversary of the DWSRF, demonstrating accomplishments for not only 2007 but also for the past decade that this exceptional program has been in existence.

Over the past 10 years, the DWSRF program has provided \$12.6 billion in assistance to 5,555 projects that have improved public health protection for millions of Americans. Since 1997, 39% of DWSRF assistance has been provided to systems serving fewer than 10,000 people, and 72% of all assistance agreements have been with these small systems. Flexibility, innovation, and forward-thinking are hallmarks of this program, as the numerous examples in this report illustrate.

Through the DWSRF's set-aside provisions, states can support the development and implementation of key programs designed to advance the achievement of the Safe Drinking Water Act's ambitious public health protection objectives. The DWSRF is unique in offering the states this flexibility to tailor a mix of infrastructure and programmatic investment that best meets their specific circumstances and priorities. Through 2007, the states have invested some \$1.4 billion in these set-aside activities.

Ensuring the long-term sustainability of our nation's drinking water infrastructure is a major challenge. The DWSRF offers states many tools to help meet this challenge. Building on 10 years of proven success, the DWSRF program is moving forward to help ensure sustainable public health protection for 21st century America.

I welcome this opportunity to share with you the decade of accomplishments that makes the DWSRF an important and effective program.

Sincerely,

Benjamin H. Grumbles
Assistant Administrator
Office of Water



Introduction

For 10 years, the Drinking Water State Revolving Fund (DWSRF) has enabled communities throughout the nation to make affordable, long-term investments in sustainable public health protection for millions of Americans.

Congress established the DWSRF in the 1996 Safe Drinking Water Act (SDWA) Amendments in order to provide states with a financing mechanism to ensure safe drinking water. The DWSRF is designed to finance investments in infrastructure and to support the key initiatives introduced in the Amendments, including ensuring the technical, managerial, and financial capacity of drinking water systems; achieving sustainable infrastructure; and preventing drinking water contamination. Each state program targets the drinking water systems that have the most significant public health and financial needs. At the same time, states can direct resources as they see fit to provide public water systems (PWSs) with the necessary tools and knowledge to avoid future public health problems.

Since the initial \$1.2 billion federal commitment in 1997, the DWSRF has grown into an accessible and efficient multi-billion-dollar funding source. In 1997 and 1998, states provided \$339 million in assistance through 170 agreements. In the 8 years since, states have provided \$12 billion in assistance through nearly 5,200

loan agreements. The fund's summary statement (Exhibit 2), provides an overview of its strong growth.

This annual report documents the DWSRF program's 10 years of remarkable success and rapid growth. The report details how states and EPA made the DWSRF a:

- Critical source of funding for public health protection for communities most in need (Section 1: Public Health Success).
- Financially successful and robust lending program (Section 2: Financial Success).
- Key contributor to the sustainability of the nation's drinking water infrastructure (Section 3: Achieving Sustainable Infrastructure).
- Dynamic program that will evolve to meet the needs of drinking water systems and state programs in the future (Section 4: Future of the DWSRF).

For 10 years, the DWSRF has enabled drinking water systems to make affordable investments in critical infrastructure

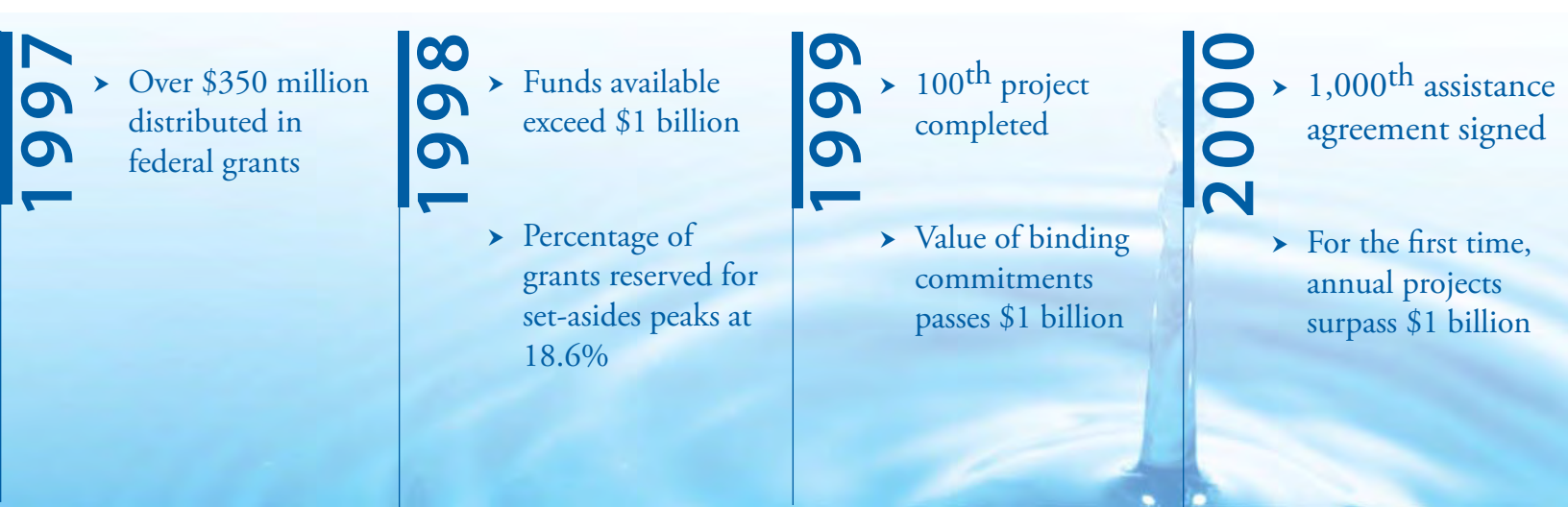


Exhibit 2: DWSRF National Performance Summary Statement Fund Activity - Estimated (\$ Millions)

Annual Fund Activity	2007	2006	1997
Federal Capitalization Grants	796.0	777.3	64.7
State Matching Funds	118.7	166.4	28.6
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New DWSRF Funds Available for Assistance	1,626.9	1,639.4	83.2
Project Commitments (Executed Loan Agreements)	1,630.1	1,664.0	0.9
Number of Loans/Projects Financed	538/596	541/585	1/1
New Set-Aside Funds Available for Assistance	117.7	135.3	10.1
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Project Disbursements from the Fund	1,644.9	1,472.3	0.0
Cash Draws from Federal Capitalization Grants (Fund)	816.6	744.1	(0.3)
Cash Draws from Set-Asides	128.9	124.1	0.3
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Cumulative Fund Activity			
Federal Capitalization Grants	8,129.0	7,333.0	64.7
State Matching Funds	1,875.0	1,756.3	28.6
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DWSRF Funds Available for Assistance	14,420.0	12,793.1	83.2
Project Commitments (Executed Loan Agreements)	12,629.5	10,999.4	0.9
Number of Loans/Projects Financed	5,346/5,555	4,768/4,959	1/1
Set-Aside Funds Available for Assistance	1,366.6	1,248.9	10.1
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Project Disbursements from the Fund	10,126.7	8,481.7	0.0
Cash Draws from Fund	5,487.0	4,670.4	(0.3)
Cash Draws from Set-Asides	962.8	833.9	0.3

Source: EPA's DWSRF National Information Management System (DWNIMS)

Finally, this report presents detailed summary financial statements for the national program (Section 5: Financial Details).

DWSRF Program Accomplishments

Since 1997, states and EPA regions have worked to give drinking water systems across the country the financial, technical, and managerial means to provide safe drinking water for current and future generations. Today, the DWSRF is a cornerstone of EPA's efforts to promote and support sustainable drinking water infrastructure.

In the past decade, states loaned \$12.6 billion for 5,555 projects. They also targeted significant special assistance to small drinking water systems and disadvantaged communities (which often struggle to meet the health-based standards of the SDWA), enabling them to implement long-term strategies to build and maintain technical, managerial, and financial capacity. Over the life of the program, 39% of all DWSRF funds were provided to small drinking water systems (those serving fewer than 10,000 persons). More significantly, 72% of all assistance agreements have been with these small drinking water systems.

2001

- Annual projects funded exceed 600 for the first time
- Over \$5 billion in total funds now available

2002

- Total assistance to small systems hits \$2 billion
- Annual fund disbursements exceed \$1 billion

2003

- 99% of annual available funds loaned for the first time
- Over \$5 billion in projects started since 1997

2004

- Investment in the DWSRF exceeds \$10 billion
- Principal and interest repayments pass \$1 billion

In addition, 25% of all assistance agreements have been with disadvantaged communities, to which states often offer a mix of low-interest (or no-interest) financing, longer repayment terms, and principal forgiveness.

As the need and demand for DWSRF funding have grown, states have developed increasingly innovative ways, including leveraging, to maximize and use the available funds. States have used set-aside funding to increase the impact of the funds and to sustain day-to-day program operation.

The program's flexibility has also enabled EPA and states to respond to unexpected contamination outbreaks and natural disasters and to emerging issues and concerns such as climate change, water scarcity, and security threats.

Leveraging Additional Funds

Twenty states have used their DWSRF capitalization grants and repayments from borrowers to leverage additional funds from the bond market. As a result, these states are able to meet even greater levels of demand for DWSRF funding. The decision to leverage is based on the balance of the present demand for funds with the costs to the state program of repaying leveraged dollars. To date, states have leveraged an additional \$3.4 billion for DWSRF-funded projects.

Financial Success and Public Health Success

The DWSRF's ultimate purpose is to finance sustainable, long-term public health protection. The program's ability to fund projects that protect public health depends on financial success and growth. Since its inception, the DWSRF has achieved significant public health and financial successes. The fund's value has increased rapidly, and the DWSRF maintains a reputation as a sound federal and state investment. This financial success is particularly noteworthy given the

historically low interest rates in the public and private financing markets during the past 10 years. Drinking water systems and communities that take advantage of these loans should be on solid financial ground in the future because of the savings provided by the DWSRF.

Financial success has enabled states to fulfill the program's purpose of ensuring safe drinking water for millions of Americans. Since 1997, states have awarded \$4.9 billion in loans to help systems in violation of the SDWA health-based standards return to compliance. Another \$6 billion has gone to help drinking water systems maintain compliance or comply with upcoming regulations.

The Future of the DWSRF Program

The 10 years of rapid, consistent growth of the DWSRF program is a reflection of its vital importance. The program will serve as an even more important and powerful public health protection tool in the years to come as national attention to drinking water quality and quantity grows. As drinking water systems' needs and challenges increase and evolve, the DWSRF will be poised to respond.



2005

- ▶ Small Systems Technical Assistance set-aside spending exceeds \$100 million
- ▶ Amount of funds available exceeds \$10 billion

2006

- ▶ Average interest rate hits low of 2.15% (2% below market rate)
- ▶ Record assistance (\$1.67 billion) pushes cumulative assistance past \$10 billion

2007

- ▶ States sign their 5,000th assistance agreement
- ▶ Over 3,500 projects now complete

REGION 10 1997-2007 Highlights

Funds Available	\$592 M
Loan Agreements	478
Value of Loans	\$554 M
Fund Disbursements	\$361 M
Assistance as % Funds Available	94%
Set-Aside Spending Rate	73%
Return on Federal Investment	111%

Washington

Washington State Department of Health



Has a "Distressed County" designation based on unemployment history; an economically distressed county is one with a 3-year history of unemployment 20% greater than the statewide average.

Idaho

Department of Environmental Quality



Developed a screening tool that walks the application reviewer through a series of indicators to assess the capacity of potential borrowers.

Alaska

Department of Environmental Conservation; Alaska Department of Environmental Conservation, Division of Environmental Health



Instituted a worksheet-based assessment to efficiently evaluate DWSRF loan applicants.

Awards Recognizing Sustainable Public Health

The DWSRF biennially recognizes one state in each region that has an outstanding DWSRF program and has implemented innovative practices that have furthered the program's public health goals.

1. Public Health Success

A safe and secure supply of drinking water is essential to ensuring public and environmental health in every community. The DWSRF is committed to funding drinking water infrastructure projects necessary to protect public health. In 10 years, the financial success of the DWSRF programs has ensured the availability of DWSRF funding to protect public health for millions of Americans nationwide.

To achieve this objective, the structure and rules of the DWSRF favor PWSs most in need of assistance: small, disadvantaged, and out-of-compliance community water systems (CWSs). To identify the most critical projects, states use priority ranking systems to compile annual project priority lists (see text box). Every state takes advantage of the program's flexibility to tailor its loan assistance to address specific challenges that its drinking water systems face. In addition to loans, DWSRF set-aside funds provide each state with powerful, flexible tools with which to assist drinking water systems.

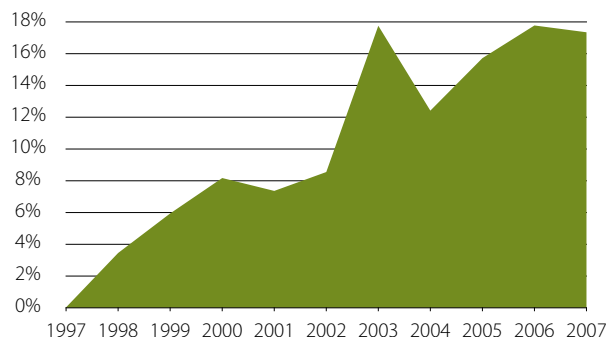
Project Priority Lists—states are required to give priority to projects that:

1. Address the most serious risks to public health
2. Are necessary to ensure that a PWS can meet the SDWA's health-based drinking water standards
3. Assist the PWSs most in need on a per-household basis

Millions Protected

As the value of the DWSRF has grown, the number of people who have benefitted from DWSRF loans has increased. The number of consumers served each year by systems that received DWSRF assistance increased by more than 300% from 1998 to 2007. In 2007 alone, the DWSRF assisted drinking water systems serving 17% of the population served by CWSs (Exhibit 3), which translates conservatively to an estimated 40 million people. In 2007, 99% of total assistance provided went to CWSs. These systems have the greatest impact on public health, particularly for chronic health threats. Thousands of systems and millions of Americans also have better public health protection as a result of efforts funded through state DWSRF set-asides.

Exhibit 3: Annual Percent of Population Served by CWSs that Received DWSRF Assistance



Public Health and Infrastructure Needs

The relationship between public health and infrastructure needs is complex; the PWSs that have the most numerous and expensive infrastructure needs are not necessarily the PWSs that have the most pressing public health needs, which is the focus of the DWSRF. The percentage of DWSRF funds that go to CWSs serving fewer than 10,000 persons (39%) is greater than the percentage of total need attributable to these small systems (28%), as identified in the most recent (2003) Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) (Exhibit 4). This is consistent with the DWSRF’s public health objectives—small PWSs typically have fewer financing options and the most difficulty providing safe drinking water because of deficiencies in technical, managerial, and financial capacity.



The projects that receive the majority of DWSRF funding are not fully representative of the need identified in the 2003 DWINSA. Treatment plants and distribution pipes are critical—and expensive—drinking water system components. EPA estimates that storage, transmission, and distribution account for 75% of drinking water system infrastructure needs (Exhibit 5), while treatment plants account for only 19% of need. Yet projects to upgrade central treatment have received as much DWSRF financing as pipe-related projects.

Exhibit 4: Total Needs and Cumulative DWSRF Assistance by System Size

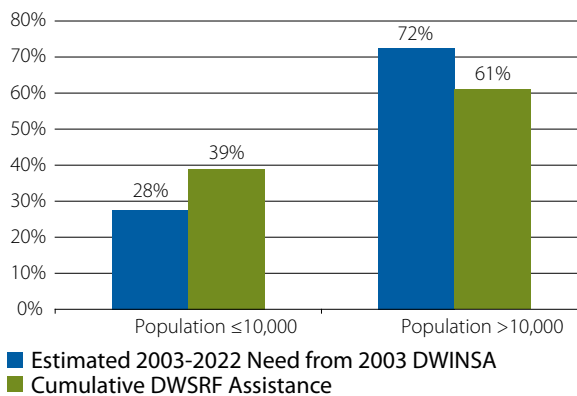
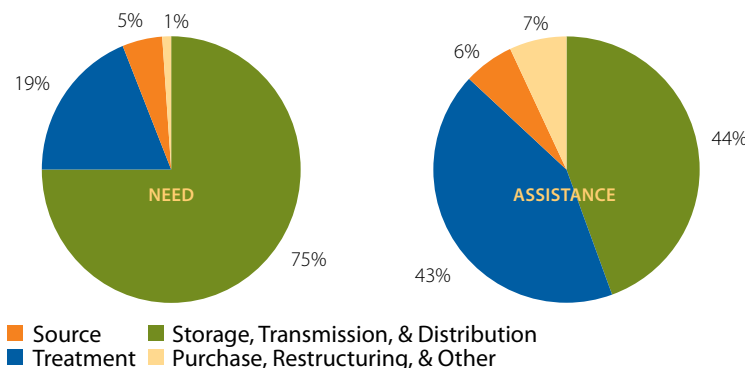


Exhibit 5: Percentage of Need (from 2003 DWINSA) and DWSRF Assistance (\$) by Project Category

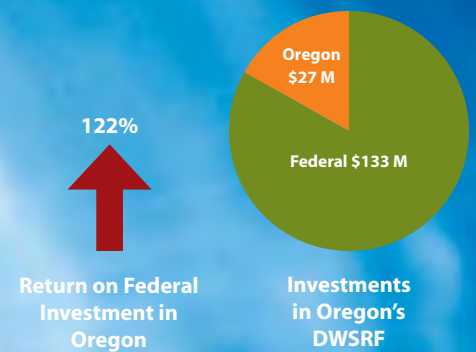


Region 10 Award Winner: Oregon

Health Services, Department of Human Services; Economic and Community Development Department; Department of Environmental Quality



One of the primary objectives of Oregon’s DWSRF program is affordability. The state has developed a special assistance program for disadvantaged communities through which borrowers can qualify for loans at 1% interest for 30 years, with up to \$250,000 of principal forgiveness. Communities can conduct their own income surveys if they feel that U.S. Census data do not correctly reflect their economic situations. The result has been a remarkable \$68 million in additional loans to more than 40 disadvantaged communities.



Oregon's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$4.4 M	\$790,000
State Program Mgmt (10%)	1452(k) Activities (15%)
\$5.7 M	\$4.0 M

1997-2007 Highlights

Funds Available	\$1,322 M
Loan Agreements	295
Value of Loans	\$1,160 M
Fund Disbursements	\$895 M
Assistance as % Funds Available	88%
Set-Aside Spending Rate	57%
Return on Federal Investment	140%

REGION 9

California

Department of Public Health

Used set-aside funds to issue loans for PWSs to purchase land and conservation easements and implement measures to protect vulnerable sources from contamination.



Hawaii

Department of Health; Safe Drinking Water Branch; Wastewater Branch

Contracted with the Rural Community Assistance Corporation using set-aside funds to provide training courses to more than 100 water system managers and 300 operators.



Nevada

Division of Environmental Protection; Office of Financial Assistance

Used set-aside funds to develop a statewide inventory of shallow underground injection wells that could negatively impact groundwater supplies.



This difference is due to the DWSRF's design—upgrading treatment facilities delivers public health protection to all consumers and enables drinking water systems to meet new, more stringent regulations in the long term. The public health gains from rehabilitating distribution systems, though important, are not as significant as those realized by upgrading treatment capability. In addition,



drinking water systems are more likely to be able to fund distribution system capital costs on an annual basis using cash and available reserves. Investments in treatment infrastructure tend to be more capital intensive over a short period of time; therefore, drinking water systems often rely on external sources of funding to finance such projects. Many of these central treatment projects would not have been possible without DWSRF financing.

Targeting Systems Most in Need

Just as each state prioritizes projects according to public health impact, each state also targets assistance to the drinking water systems that typically need the most help to provide safe drinking water: out-of-compliance, small, and disadvantaged systems. These systems often face a difficult dilemma—they cannot overcome their challenges without investing in infrastructure, but they cannot access financing because of the challenges they face. DWSRF assistance ensures that these drinking water systems are not overlooked and that public health in all communities, large and small, is protected.

Talent, Oregon

The City of Talent's water system serves 5,050 persons and was previously using some of the lowest quality water sources in the state. The City suffered a *Cryptosporidiosis* outbreak in the early 1990s and preventing another outbreak was a constant challenge due to seasonal changes in raw water quality. With a \$2 million DWSRF loan, the City abandoned their low quality water sources and connected to the larger City of Phoenix water system. The DWSRF loan covered the costs of construction and necessary infrastructure upgrades, ensuring that Talent's residents have access to safe drinking water.

Out-of-Compliance Systems

To address the most immediate risks to public health, states give priority to CWSs that are out of compliance, or at risk of being out of compliance, with federal drinking water standards. The vast majority of DWSRF loans are for projects to help CWSs achieve or maintain compliance with current and future drinking water rules (Exhibit 6). In each of the last 3 years, more than 30% of all assistance agreements have been with drinking water systems that were out of compliance with drinking water rules, posing a significant health risk to their customers. States also can use their DWSRF programs to provide expedited assistance in case of emergencies.

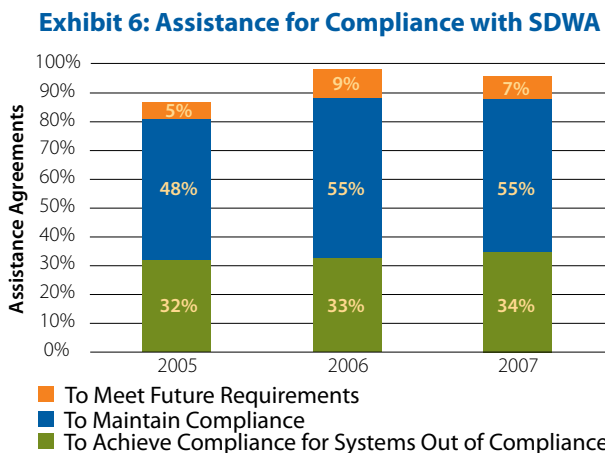
Small Drinking Water Systems

Small drinking water systems often lack the economies of scale and the technical, managerial, and financial capacity that larger systems have to reliably provide safe drinking water. Consequently, small PWSs are more likely to violate drinking water regulations. In 2007 alone, 50,013 drinking water systems serving fewer than 10,000 persons (33% of all small PWSs) reported at least one health-based standard, monitoring and reporting, or other violation, while only 1,239 larger systems (30% of all large PWSs) did so. In a nation where 97% of all drinking water systems serve fewer than 10,000 persons, making sure that these systems have access to the resources that they need is essential to public health protection. The DWSRF helps ensure that small drinking water systems do not compromise the health of their customers because they lack access to affordable capital financing.



In every year of the program, more DWSRF assistance agreements have been with small drinking water systems than with large systems. Since 2000, the DWSRF program has provided (on average) more than 400 small drinking water system agreements each year, compared to approximately 150 agreements with large systems. Most states also use set-aside funds to target additional assistance to help small drinking water systems access DWSRF financing. For example, Florida, Massachusetts, New Hampshire, and California fund circuit riders to

help these systems prepare DWSRF loan applications. Because of these and other efforts, thousands of small drinking water systems that otherwise would not have had access to financing have been awarded affordable loans from the DWSRF to complete critical infrastructure projects.

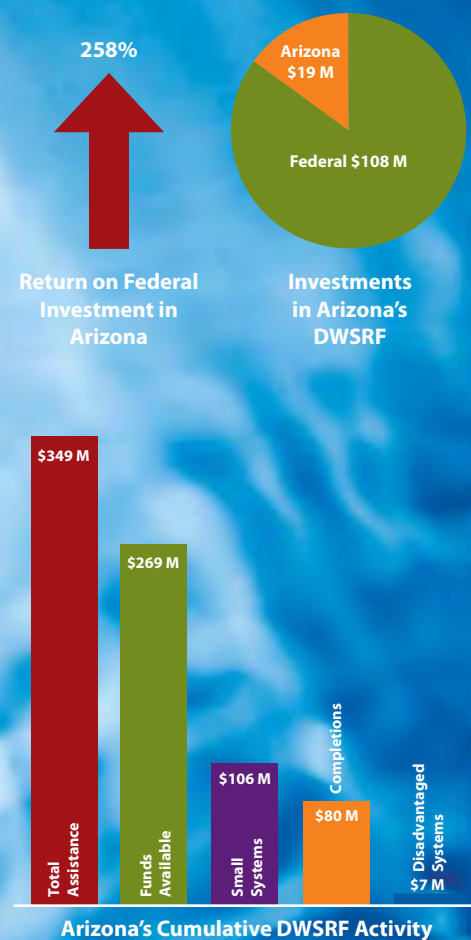


Region 9 Award Winner: **Arizona**

Water Infrastructure Finance Authority (WIFA)



WIFA has formed valuable partnerships that enhance the DWSRF program's ability to reach water systems in need of project financing. WIFA is the lead agency for the Rural Water Infrastructure Committee, an informal partnership of various federal and state agencies, including U.S. Department of Agriculture Rural Development and the North American Development Bank. WIFA provides loans, grants, and technical assistance primarily to small, rural communities. Joining forces with other financing sources has reduced workload and increased local participation. Arizona was the first state to award a DWSRF loan to a tribal nation and continues its efforts to provide assistance to tribes by working with the Intertribal Council of Arizona.



Arizona's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$4.7 M	\$830,000
State Program Mgmt (10%)	1452(k) Activities (15%)
\$1.9 M	\$4.6 M

Funds Available	\$1,000 M
Loan Agreements	482
Value of Loans	\$856 M
Fund Disbursements	\$721 M
Assistance as % Funds Available	85%
Set-Aside Spending Rate	69%
Return on Federal Investment	170%

Montana

Department of Environmental Quality; Department of Natural Resources and Conservation



Contracted with Montana State University through a set-aside to create a CD-ROM to provide training on source water assessment and delineation.

North Dakota

Department of Health; North Dakota Public Finance Authority



Collaborates with the state Rural Water Association and Rural Community Assistance Programs to target assistance to small PWSs.

South Dakota

South Dakota Department of Environment and Natural Resources



One-third of assistance agreements going to disadvantaged communities have repayment periods greater than 20 years.

Utah

Department of Environmental Quality, Division of Drinking Water



Supports consolidation efforts with set-aside funds to increase the number of customers per treatment facility while raising revenues and reducing treatment costs.

Wyoming

Office of State Lands and Investments; Department of Environmental Quality; Water Development Office



Uses funds from the 4% set-aside to offset operating costs, ensuring that the program can continue without significant cost increases to users of the fund.

Disadvantaged Communities

Drinking water systems that serve disadvantaged communities often lack both access to much-needed infrastructure financing and the resources to adequately maintain their existing system components. As a result, these PWSs face significant challenges in complying with long-standing and new drinking water rules. In addition to ranking disadvantaged communities higher on project priority lists, many states provide these communities with a mix of longer repayment terms, lower interest rates, and principal forgiveness. In the past decade, 1,411 agreements have been signed with disadvantaged communities, totaling \$2.2 billion in assistance. Almost 650 of these agreements have repayment terms in excess of 20 years. In addition, nearly 600 loans have been provided totaling over \$300 million in principal forgiveness (Exhibit 7).

Set-Asides Expand the Public Health Impact

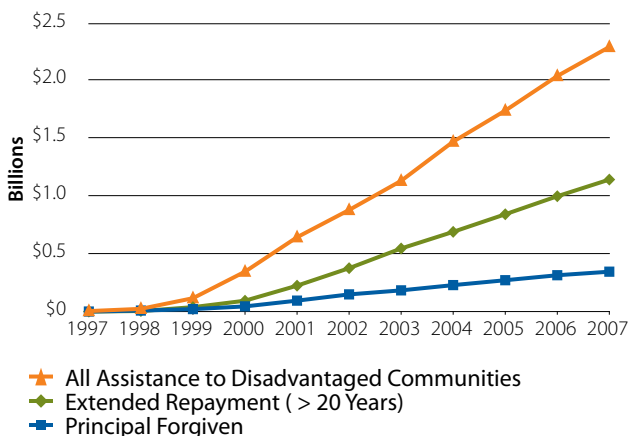
Each state reserves a portion of its annual capitalization grant to fund programs in support of safe drinking water. These programs extend the impact of the DWSRF, providing help to drinking water systems in addition to those that receive loans. States can also use set-aside funds to meet systems' individual needs. This tailored approach helps states allocate funds where they will have the biggest impact on public health.

Lyons, Colorado

The Town of Lyons' drinking water system was unable to maintain compliance with current standards and regulations. The state determined this system to be a potential acute health hazard. To serve the public with safe drinking water, Lyons connected to the City of Longmont, which had recently constructed a new water treatment plant. With \$4.9 million in DWSRF funds, the systems consolidated and improved the technical, managerial, and financial capacity for both systems.

Over the past 10 years, states have expended \$963 million to implement a variety of programs with the goal of improving public health protection. Although in the past states had set aside more funds than they spent, expenditures of set-aside funds have been increasing each year since 2004. The set-aside funds in reserve peaked in 2006 at over \$350 million, but in 2007 expenditures surpassed

Exhibit 7: Cumulative Assistance to Disadvantaged Communities



Water Resources and Power Development Authority; Water Quality Control Division; Department of Local Affairs – Division of Local Government



Voice of Experience: Cynthia Dougherty, Director of EPA's Office of Ground Water and Drinking Water

Cynthia Dougherty has been director of the National Drinking Water Program since 1995.

"It's not often in federal government that you get the opportunity to see a program start from the ground up and grow into a true success story. In the mid-1990's, a Republican Congress and Democratic Administration looked at the success of the Clean Water SRF (CWSRF) program and the challenges facing PWSs. They worked together to create a new DWSRF program that, while based on its older sibling, brought flexible new provisions to help target funds where the needs were greatest and to address disadvantaged communities. They allowed states to use some of their money to carry out other activities—from capacity development to operator certification to source water protection—that would support strong PWSs for the future. Most states had no preexisting drinking water infrastructure financing program. Over a short time period, they worked through how to structure their programs, how to deal with similarities and differences with the CWSRF, and how to decide whether and how much of the set-asides to use. This report demonstrates how states have successfully worked through those issues and developed thriving programs that will help ensure safe and secure drinking water for the future. It is a program that I am proud of, as I am sure are all who have worked in and with it since 1997."

the amount set aside as states implemented targeted, strategic programs to assist their drinking water systems (Exhibit 8).

There are four DWSRF set-aside categories. Each has a connection to public health, and the programs they fund protect public health from source to tap. States can reserve funds under each of the four set-asides at their discretion up to the maximum limit.

Small Systems Technical Assistance (2% Set-Aside)

Up to 2% of a state's capitalization grant can be used to fund programs dedicated to drinking water systems serving fewer than 10,000 persons. As noted previously, smaller drinking water systems typically face greater challenges than larger systems; states use set-aside funds to help small systems build the capacity they need to

Colorado strives to provide the funds and support to help its water systems finance key infrastructure projects. Colorado aggressively leverages its Fund and has created a disadvantaged community program (for communities of 5,000 or fewer persons) offering up to \$2 million in loans at interest rates as low as 0% over 30 years. CDPHE has also been a leader in the creative use of the 15% set-aside, using funds to support source water protection plan development, to create a Drinking Water Excellence Program to enhance operational capabilities of water systems, and to implement a Radionuclide Abatement and Disposal Strategy focused on assisting small water systems in disposing of materials containing radionuclides.

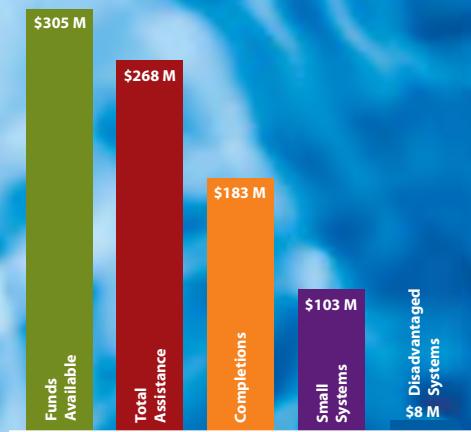
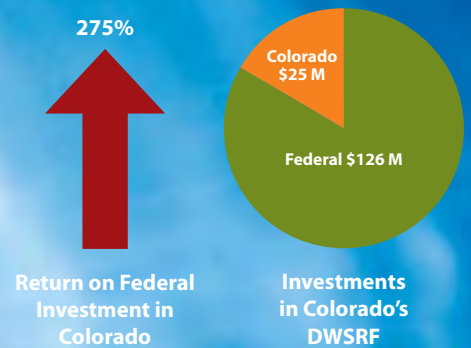
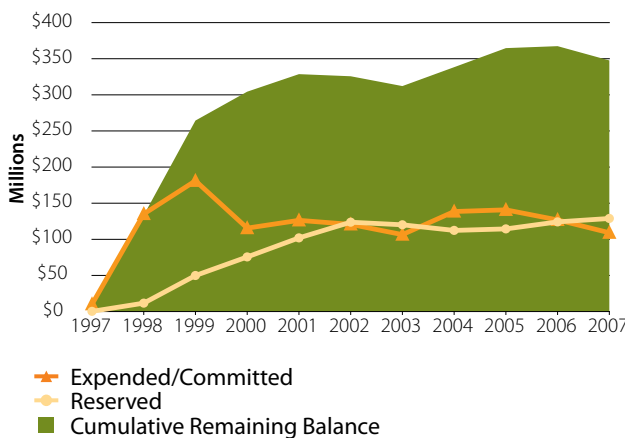


Exhibit 8: Annual Set-Asides Reserved and Expended



Colorado's Cumulative DWSRF Activity

Colorado's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$3.0 M	\$1.0 M
State Program Mgmt (10%)	1452(k) Activities (15%)
\$4.0 M	\$8.9 M

Funds Available	\$979 M
Loan Agreements	525
Value of Loans	\$952 M
Fund Disbursements	\$797 M
Assistance as % Funds Available	97%
Set-Aside Spending Rate	69%
Return on Federal Investment	214%

Iowa

Department of Natural Resources; Iowa Finance Authority



Developed an easy-to-use Web site to educate consumers and program users and a loan calculator showing the savings attributable to the loan, among other tools.

Missouri

Department of Natural Resources; Environmental Improvement and Energy Resources Authority



Works to increase the number of small drinking water systems that apply for DWSRF funding by providing grants for engineering report preparation to very small PWSs.

Nebraska

Department of Environmental Quality



Uses set-aside funds to support a mentor program between large and small water systems.

comply with current and future drinking water rules and for other purposes. Florida and Pennsylvania have used this set-aside to contract with technical assistance providers to perform efficiency audits and provide leak detection services at small drinking water systems. States have spent almost \$14 million from this set-aside in each of the past 3 years and spent more than reserved in both 2006 and 2007 (Exhibit 9).



Administrative and Technical Assistance (4% Set-Aside)

States can set aside up to 4% of their capitalization grants to provide direct technical assistance to drinking water systems and to administer their DWSRF programs. Nationally, states have begun spending down their reserves over the past 2 years to reach out to drinking water systems that need a DWSRF loan but also need technical assistance to create plans, apply for a loan, and move forward (Exhibit 10).

Exhibit 9: Small Systems Technical Assistance Set-Aside Annual Awards and Expenditures

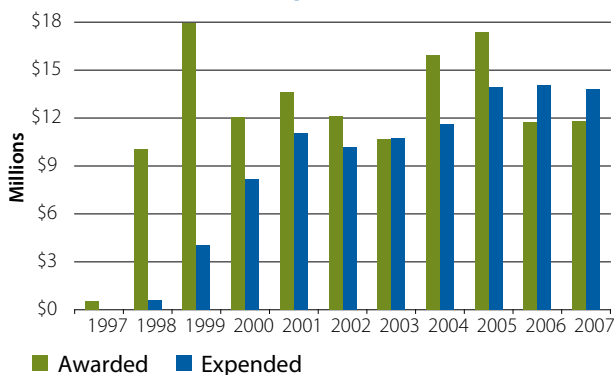
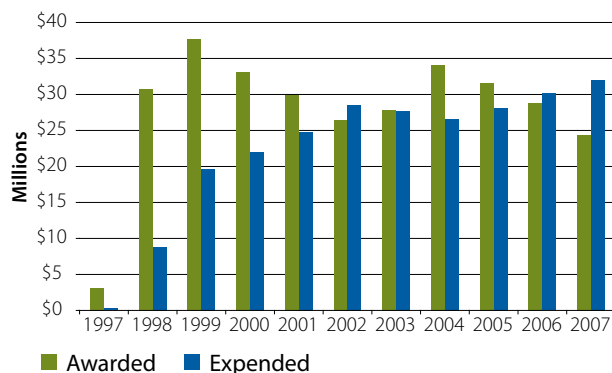
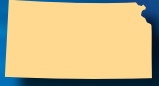


Exhibit 10: Administrative and Technical Assistance Set-Aside Annual Awards and Expenditures





State Program Management (10% Set-Aside)

The 10% State Program Management set-aside can be used to fund state Public Water System Supervision (PWSS) programs, which oversee all drinking water activities in a state, thus providing improved public health protection to everyone served by PWSs. These resources can also be used for source water protection activities, capacity development initiatives, and operator certification programs, all of which increase the ability of drinking water systems to provide safe, high-quality drinking water. For the past 3 years, states have spent more than \$43 million annually from this set-aside, more than from any other set-aside (Exhibit 11). States spent more than they reserved for the first time in 2007.

Local Assistance and Other State Programs (15% Set-Aside)

States can use up to 15% of their federal capitalization grant (although no more than 10% for any one activity) to provide loans to acquire land or conservation easements for protection of source waters, provide loans for the implementation of voluntary, incentive-based source water quality protection measures, assist PWSs as part of a Capacity Development Strategy, and assist PWSs with wellhead protection. Since 2004, annual state spending under this set-aside (often referred to as the 1452(k) set-aside) has remained between \$29 million and \$35 million (Exhibit 12). Although states can customize the use of all set-asides, states have the most flexibility with the 15% Local Assistance set-aside. Delaware used this set-aside to investigate the sources and extent of mercury contamination in Sussex County. Tennessee used the set-aside to study the Memphis Sand Aquifer, a ground water source under the direct influence of surface water in the eastern part of the state.

KDHE continuously works to maximize assistance to drinking water systems across the state and to make the DWSRF program a model of effective infrastructure financing. KDHE has formed partnerships with other state agencies to help streamline the loan process and market the DWSRF program. Kansas Rural Water Finance Authority staff review loan applications, allowing KDHE staff to focus on the environmental issues affecting communities. The state's Rural Water Association also provides technical assistance and promotes the DWSRF program to small drinking water systems. KDHE has developed a flexible application process for small water systems. Because these systems often need to secure funding for an entire project before they begin planning, KDHE may enter into loan agreements before engineering details are finalized.

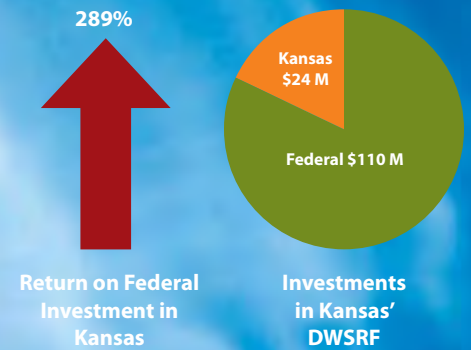


Exhibit 11: State Program Management Set-Aside Annual Awards and Expenditures

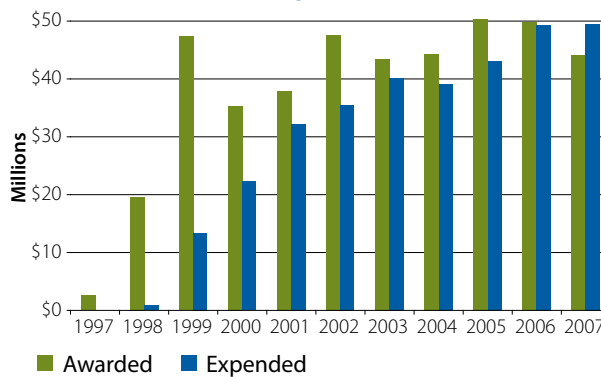
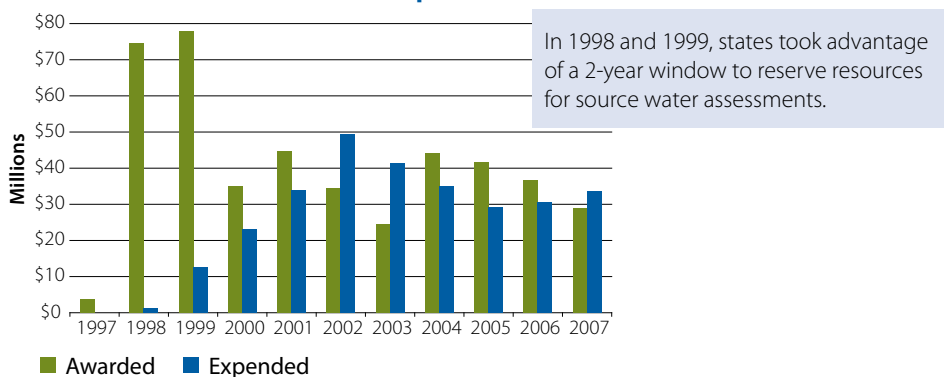


Exhibit 12: Local Assistance and Other State Programs Set-Aside Annual Awards and Expenditures



Kansas' Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$2.8 M	\$1.7 M
State Program Mgmt (10%)	1452(k) Activities (15%)
\$665,000	\$1.5 M

1997-2007 Highlights

Funds Available	\$1,284 M
Loan Agreements	213
Value of Loans	\$1,006 M
Fund Disbursements	\$722 M
Assistance as % Funds Available	78%
Set-Aside Spending Rate	73%
Return on Federal Investment	139%

Louisiana

Department of Health and Hospitals



Regularly attends and markets the DWSRF at the Louisiana Municipal Association's annual convention, the Louisiana Police Jury Association's annual convention, and the Louisiana Rural Water Annual Training and Technical Conference.

Oklahoma

Department of Environmental Quality; Water Resources Board



Using set-aside funds, contracts with the state's Rural Water Association to conduct at least 200 annual small drinking water system site visits to help improve system operation, management, and compliance rates.

New Mexico

New Mexico Finance Authority; New Mexico Environment Department



Helps drinking water systems targeted for assistance prepare preliminary engineering plans and specifications and conduct environmental reviews.

Texas

Water Development Board; Texas Commission on Environmental Quality (TCEQ)



With the 10% set-aside, developed a loan program to help drinking water systems implement source water protection best management practices.

2. Financial Success

The goal of the DWSRF is to protect public health. The DWSRF achieves this goal by financing sustainable drinking water infrastructure. The program's progress in protecting public health hinges on the financial success of the DWSRF as a lending institution. In its first decade, the DWSRF has been an incontrovertible financial success, meeting or exceeding expectations.

This section showcases this strong performance from several perspectives, including the investments made by Congress and states into the funds, how drinking water systems are eager to use and invest these resources, and the cycling and growing of resources as drinking water systems repay their loans. This section also demonstrates the results of the DWSRF's financial success, including healthy returns on federal and state investments, a significant and growing share of the drinking water infrastructure financing market, and fund perpetuity.

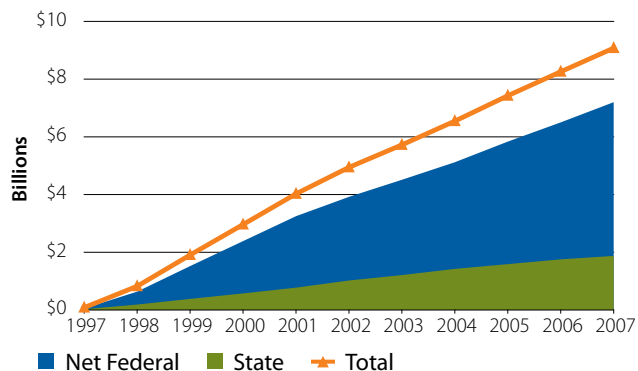


Investments in the DWSRF

In the past 10 years, the federal government has contributed \$8 billion to the DWSRF program (\$7.2 billion net), and states have invested close to \$2 billion (through a 20% match of federal contributions). As shown in Exhibit 13, total net federal and state contributions reached \$9 billion in 2007. Over the past 5 years, new money channeled into the program has stabilized between \$800 million and \$850 million per year. EPA expects investments to continue in this range for another decade.

States have accepted and excelled at the role of managing these monies. Nearly every state goes beyond the minimum requirements and conducts a full, independent audit of its DWSRF program. In addition to these stringent financial controls, states manage efficient operations that keep administrative costs as a percentage

Exhibit 13: Cumulative Federal and State Contributions to the DWSRF



of the assistance provided very low. In the past 4 years, states on average have kept their overhead levels around 2% of the value of the loans provided (Exhibit 14), which is similar to the administrative costs of similar federal loan programs, including the Clean Water SRF (CWSRF) in its first decade.

DWSRF Investing in Drinking Water Systems

The initial investments into the DWSRF are seed funds from Congress and states to establish an ongoing program that allows drinking water systems to borrow money at subsidized interest rates. Unlike grant programs, the DWSRF requires drinking water systems (with the exception of some disadvantaged systems) to repay their loans, which promotes full-cost pricing and preserves the federal and state investment.

Unlike the interest drinking water systems pay when financing projects through bonds or commercial borrowing, the interest paid on DWSRF loans is retained in the program and made available to other water systems rather than kept as profit or earnings. Drinking water systems benefit by saving money when they

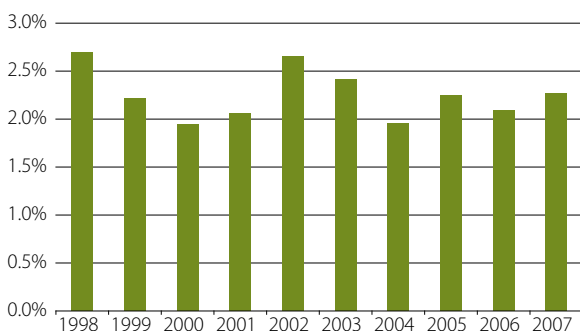


borrow from the DWSRF, and other drinking water systems benefit by being able to borrow the repaid federal and state investment.

States work closely with drinking water systems to provide financing packages to ensure that utilities receive the funding they need on terms they can afford. By putting money into

the hands of a drinking water system, states encourage public health protection and start the cycling of resources that will grow and expand the DWSRF. Not surprisingly, the program developed at a slower pace in the first 2 years as states laid their programs' foundations. In the ensuing years, performance and growth have been impressive as states have accelerated the pace of assistance.

Exhibit 14: Ratio of Annual State Administrative Costs to Annual Assistance Provided

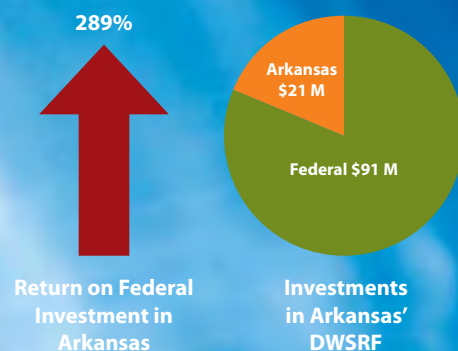


Region 6 Award Winner: Arkansas

Arkansas Natural Resources Commission (ANRC); Department of Health



ANRC collaborates with other state and federal funding agencies to promptly and comprehensively fund water system needs. ANRC is a charter member of and active participant in the Arkansas Water/Wastewater Advisory Committee, composed of state and federal funding and regulatory agencies with an interest in or oversight of state water and wastewater projects. Through participation in project review and coordination with other agencies, ANRC has helped to ensure funding for as many eligible and viable projects as possible to meet state water quality improvement goals. ANRC has also worked to maintain demand for DWSRF loans, in part by lowering the interest rate from 3.25% to 2.75% for a 3-month period. ANRC will need to leverage funds to keep pace with the increased demand for DWSRF assistance.



Arkansas' Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$3.7 M	\$940,000
State Program Mgmt (10%)	1452(k) Activities (15%)
\$6.3 M	\$5.8 M

REGIONS

1997-2007 Highlights

Funds Available	\$2,812 M
Loan Agreements	932
Value of Loans	\$2,303 M
Fund Disbursements	\$2,010 M
Assistance as % Funds Available	82%
Set-Aside Spending Rate	72%
Return on Federal Investment	184%

Illinois

Environmental Protection Agency

Established a program to delineate recharge areas for CWS wells that draw from unconfined aquifers.



Michigan

Department of Environmental Quality; Municipal Bond Authority

With help from set-aside funds, developed a statewide program to help water systems manage abandoned wells within wellhead protection areas.



Minnesota

Public Facilities Authority; Department of Health

Used the 15% set-aside to contract with other state agencies to obtain contaminant source information on vulnerable wells.



Ohio

Environmental Protection Agency; Ohio Water Development Authority

Encourages the regionalization of small drinking water systems so they may benefit from economies of scale and better protect public health.



Wisconsin

Department of Natural Resources; Department of Administration

Uses set-aside funds to contract with the state Rural Water Association to hold informal forums for operators to discuss pertinent issues.



Assistance

The value of the loans provided by states has been increasing along with the amount of new funds available (Exhibit 15). Of the nearly \$14.5 billion in funds available, states have already issued \$12.6 billion in assistance to drinking water systems across the country. The federal government has made net investments of \$7 billion in the DWSRF, and the states and systems have leveraged those resources to create an additional \$5 billion in assistance—an increase of nearly 60%. Overall, states have provided nearly 90% of the total funds available to drinking water systems as direct assistance.

Set-Asides

States and EPA have also effectively used set-aside resources to protect public health. Exhibit 16 shows the growth in set-asides reserved and expended. States have increased their spending from set-asides each year since 2004, and in 2007 they spent down the set-aside reserves they had accumulated. By accelerating the spending of the set-asides, states are putting the funds to their intended use and thus protecting public health.

Disbursements

Awarding loans to drinking water systems is just the first step in moving money through the DWSRF. Assistance in the form of a loan essentially becomes a line of credit that systems can draw from as they build the project for which they needed the loan. Drinking water systems are reimbursed as they incur eligible project costs; these payments made by states from the loan funds are called disbursements.

Exhibit 15: Cumulative DWSRF Assistance Available and Assistance Provided

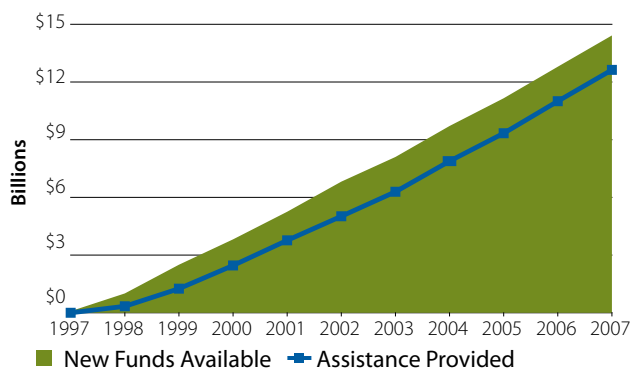
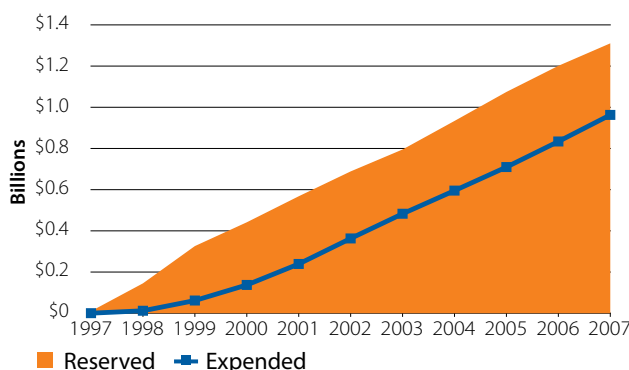


Exhibit 16: Cumulative Set-Asides Reserved and Expended



Disbursements represent the actual flow of dollars from state programs to drinking water systems. By definition, disbursements lag assistance because of the time it takes to implement an infrastructure project once a drinking water system has received a loan. In 2007, states continued to accelerate the pace of disbursements, decreasing this lag time. States have disbursed over \$10 billion of the \$12 billion committed (Exhibit 17).

Project Starts & Completions

Another measure of financial success is the progression of projects from funding (having received a loan) to the start of construction to the completion of construction. The value of completed projects jumped in 2007, and the value of projects funded and started has steadily increased since the inception of the DWSRF program. These trends showcase the success that states are having in using the tools and expertise of their mature programs to help drinking water systems move from receiving a loan to successfully implementing infrastructure upgrades.

Recycling Funds

Once borrowers complete their infrastructure projects, they begin principal and interest payments, which are a driving force for DWSRF growth. These repayments ensure that affordable financing will be available for other drinking water systems. The financial success of the DWSRF is no more evident than when examining the rate of acceleration of principal and interest repayments as well as other sources of operating revenue (such as fees and interest income on fund balances, as shown in Exhibit 18).

Exhibit 17: Cumulative DWSRF Assistance Provided and Disbursements

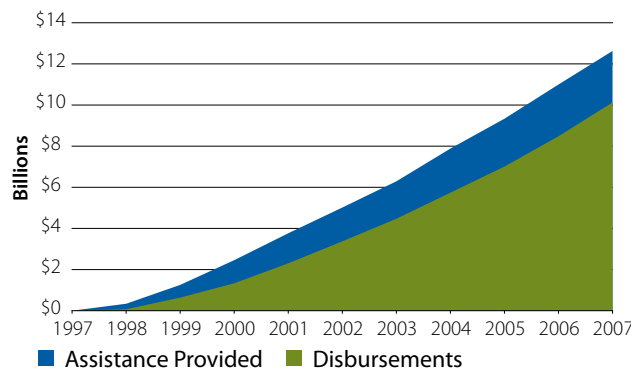
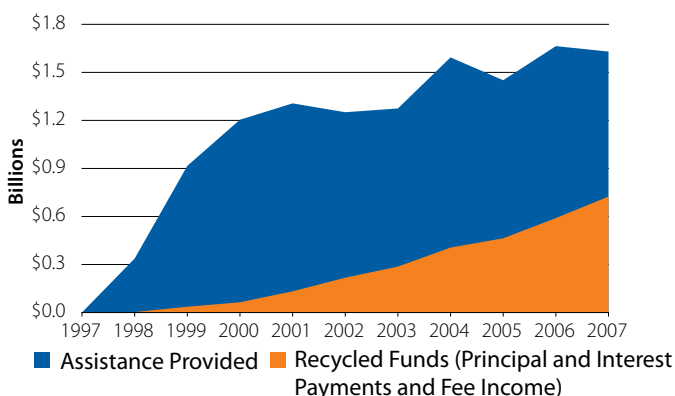


Exhibit 18: Annual Assistance from Recycled Funds

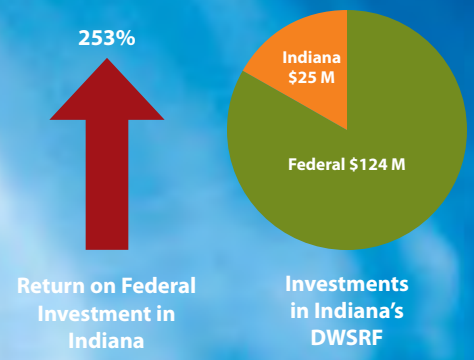


Region 5 Award Winner: **Indiana**

Indiana Finance Authority (IFA); State Revolving Loan Fund Program



IFA has greatly improved Indiana's DWSRF program performance since its inception in 2005. The state created project summaries that highlight compliance, economic, and public health benefits for each loan, which are included in the program's annual report. These summaries served as an initial model for the ongoing effort to develop a national DWSRF benefits report. IFA has used creative lending approaches to reach out to borrowers who were unable (due to capacity constraints) to get into the fundable range on the state's project priority list. IFA developed a pooled loan program that allows communities to borrow at the state's AAA borrowing rate—well below the market rate. The IFA issued a total of six pooled loans in 2006 and 2007 for \$52 million.



Indiana's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$1.5 M	\$830,000
State Program Mgmt (10%)	1452(k) Activities (15%)
\$1.2 M	\$2.2 M

1997-2007 Highlights

Funds Available	\$1,528 M
Loan Agreements	663
Value of Loans	\$1,364 M
Fund Disbursements	\$1,130 M
Assistance as % Funds Available	89%
Set-Aside Spending Rate	80%
Return on Federal Investment	141%

Alabama

Department of Environmental Management



Used the 2% set-aside to conduct site visits and hold training sessions, which were attended by more than 300 water system board members.

Florida

Department of Environmental Protection



Contracts with the Rural Water Association using set-aside funds to provide leak detection services and water audits for drinking water systems.

Kentucky

Kentucky Infrastructure Authority; Division of Water, Drinking Water Branch, Environmental and Public Protection Cabinet



Established a loan program for land acquisition or conservation easements for sites within a delineated source water or wellhead protection area and consistent with approved county water supply plans.

Mississippi

State Department of Health; Department of Environmental Protection; State Tax Commission



Using set-aside funds, contracts with the Mississippi State University Cooperative Extension Service to provide technical training to PWS board members and small PWS managers.

North Carolina

Department of Environment and Natural Resources



Uses set-aside funds to develop and mail an annual training calendar and periodic newsletters to publicize training activities.

South Carolina

Department of Health and Environmental Control; Budget and Control Board



Uses the 2% set-aside to help small drinking water systems develop standard operating procedures and detailed business plans.

Tennessee

Department of Environment and Conservation; Tennessee Comptroller of the Treasury



Has the highest set-aside spending rate in Region 4 at 107%.

Return on Investment

The cycling of money through the DWSRF and the efforts by states to leverage their funds to maximize resources have yielded impressive returns that have grown significantly since the inception of the program. A more narrow definition of return on investment compares outlays (dollars drawn from the federal treasury) to disbursements (dollars sent from states to drinking water systems). This federal return on investment has grown steadily, as shown in Exhibit 19. Congress has generated more than \$10 billion in actual infrastructure improvements at a cost of just under \$6.5 billion. The annual federal return has increased from around 160% in 2000 to nearly 200% in 2007; the cumulative return has also been increasing since 2002 and neared 180% in 2007.



Rather than compare dollars changing hands, a broader measure of return on investment compares the loan assistance for drinking water systems to the federal contributions to the loan funds—and yields even more impressive results. In 2007, net federal contributions continued to hover near \$700 million while the total assistance provided exceeded \$1.6 billion. The net federal contribution of \$7.2 billion has generated more than \$12 billion in affordable infrastructure investments, a return of more than 200% (Exhibit 20).

Exhibit 19: Cumulative Disbursements and Annual Federal Outlays

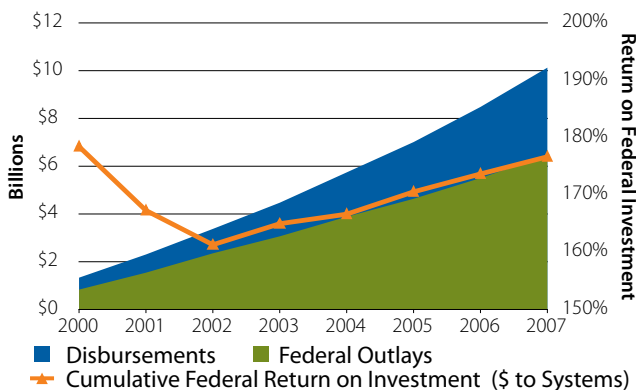
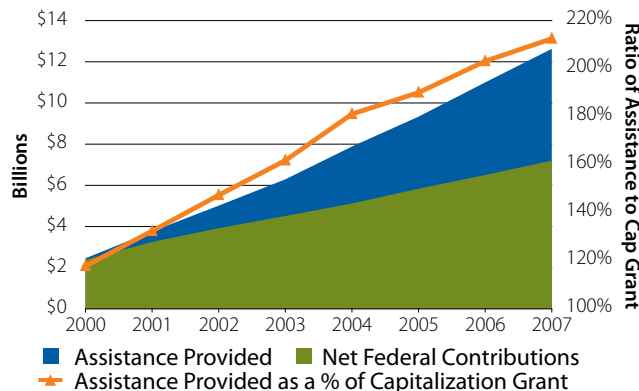


Exhibit 20: Cumulative Assistance and Cumulative Net Federal Contributions



The net result of this robust increase is shown in Exhibit 21. The growth in annual assistance is driven by the increase in loan repayments made by early beneficiaries of the DWSRF. The portion of total annual assistance that could come from water system repayments has increased each year to 45% in 2007. The result of this recycling of funds is increasing growth in funds available, with repayments playing an ever increasing role.

State Return on Investment

The states' returns on investment (comparing assistance provided to state contributions) have been even more extraordinary. From an investment of less than \$2 billion, states have harnessed federal and recycled resources to create more than \$12 billion in capital improvements (Exhibit 22). States produce \$6 in infrastructure assistance for every \$1 they put into the DWSRF, if calculated as a rate of return.

Market Position

In just 10 years, the DWSRF has grown to occupy an important niche in the drinking water infrastructure financing market. The 2002 Census of Governments estimated that publicly-owned CWSs borrowed \$13 billion to invest in drinking water infrastructure in 1997, the same year the DWSRF was established. Five years later, municipal drinking water systems borrowed \$16 billion for infrastructure, and the DWSRF accounted for approximately 8% of this borrowing.

Exhibit 21: Cumulative DWSRF Revenues from Operations and Repayments

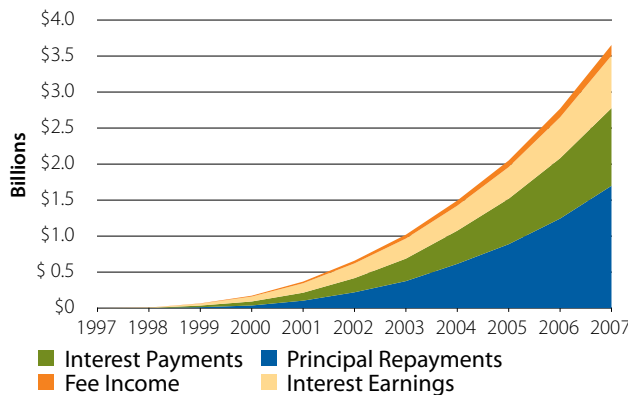
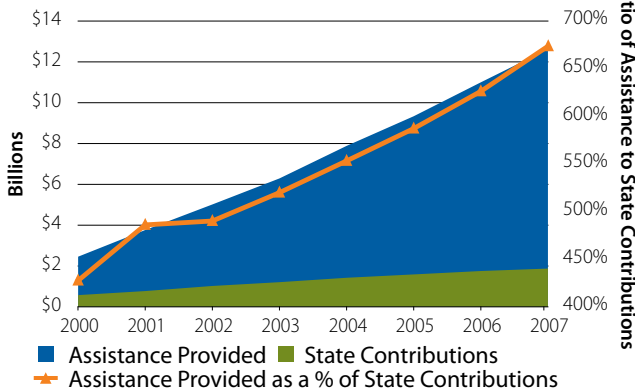


Exhibit 22: Cumulative State Contributions and Assistance Provided

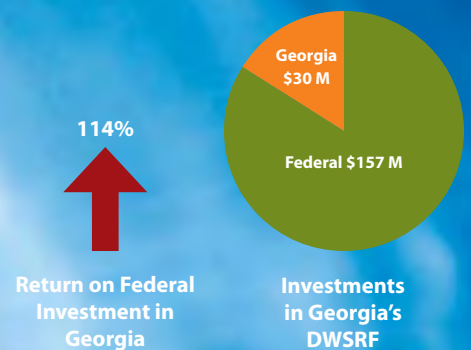


Region 4 Award Winner: **Georgia**

Environmental Facilities Authority (GEFA);
Environmental Protection Division



GEFA targets DWSRF resources to the state's many small drinking water systems. As of June 2007, the state had provided over \$26 million in principal forgiveness to 64 communities, eliminating approximately 1,500 underperforming or contaminated private wells and creating storage facilities for 4.25 million gallons of water. GEFA markets its loan programs through "GEFA 101 Marketing and Informational Seminars," which provide a forum for the local government and engineering community to discuss program requirements, specific projects, and success stories. These seminars have resulted in several new projects.



Georgia's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$4.9 M	\$2.1 M
State Program Mgmt (10%)	1452(k) Activities (15%)
\$12.1 M	\$9.1 M

1997-2007 Highlights

Funds Available	\$832 M
Loan Agreements	479
Value of Loans	\$759 M
Fund Disbursements	\$616 M
Assistance as % Funds Available	91%
Set-Aside Spending Rate	75%
Return on Federal Investment	154%

REGIONS

Delaware

Health and Social Services; Department of Natural Resources and Environmental Control



Using set-asides funds, contracted with a community college to provide operator certification training.

Maryland

Maryland Water Quality Financing Administration; Water Management Administration



Advises loan recipients on developing rate structures and helps drinking water systems analyze the impact of the loan on their customers.

Pennsylvania

Pennsylvania Infrastructure Investment Authority (PENNVEST); Department of Environmental Protection



Used the 2% set-aside to contract with the Northeast Rural Community Assistance Program to help water suppliers address financial and managerial problems.

West Virginia

West Virginia Department of Health and Human Resources; Water Development Authority



Used set-aside funds to update the SDWIS data management system.

There are no comprehensive data on the market for drinking water system financing, but several sources show that the DWSRF is meeting existing demand that had not been met through traditional financing sources. The 2000 Community Water System Survey (CWS Survey) estimated that drinking water systems invest approximately \$10 billion per year in capital improvements. The CWS Survey estimated that DWSRF financing accounts for approximately 5% of overall capital investment in drinking water infrastructure; systems rely primarily on current revenue (39%) and borrowing from the private sector (42%). However, a closer examination of CWS Survey data shows how the DWSRF has filled an important niche:

- 17% of publicly-owned CWSs used the DWSRF to finance a portion of their capital needs;
- 11% of total capital funds for publicly-owned CWSs came from the DWSRF;
- 15% of CWSs serving fewer than 500 persons and 23% of CWSs serving 500 to 3,300 persons made capital investments through the DWSRF; and
- 20% of capital improvements for publicly-owned CWSs serving 10,000 or fewer persons were financed through the DWSRF.

(Source: EPA 2000 CWS Survey)

The DWSRF has established itself as the largest federal financing program for drinking water infrastructure. From 2004 to 2006, the U.S. Department of Agriculture's Rural Utilities Service (RUS) provided on average about \$1.5 billion in loans and grants per year to 1,200 rural utilities for drinking water and wastewater projects. (The DWSRF averaged \$1.6 billion for drinking water projects alone in the same period.) In addition, the U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG) Program's total disbursements for water and wastewater in 2003 amounted to \$479 million.

The DWSRF does not compete with these sources; EPA encourages cooperation and joint funding of projects to meet the needs of local drinking water systems. However, the dramatic growth of the DWSRF ensures that it will continue to be the largest source of federal funding for drinking water systems for the foreseeable future.

Future Outlook: Growth in Perpetuity

The concerted efforts of EPA, states, and drinking water systems have put the DWSRF on track for financial success in perpetuity. As principal and interest payments grow because of the increase in assistance, the number of years needed to repay the outstanding debt at that year's repayment pace is anticipated to decrease further and approach 20 years, the most common length for DWSRF loans.

Exhibit 23 forecasts the federal return for additional dollars invested in the fund. Based on current trends, each additional federal dollar could provide at least \$10



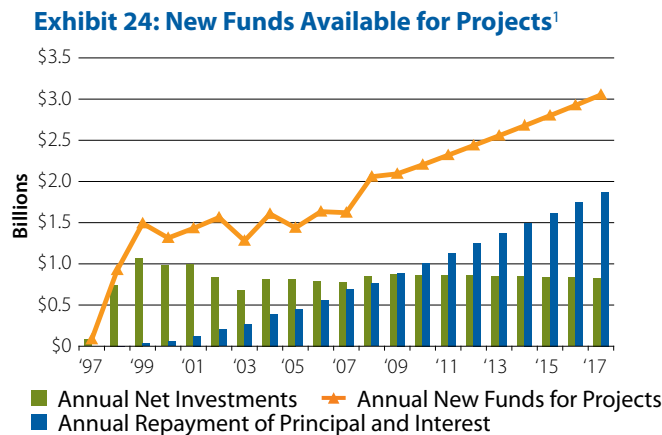
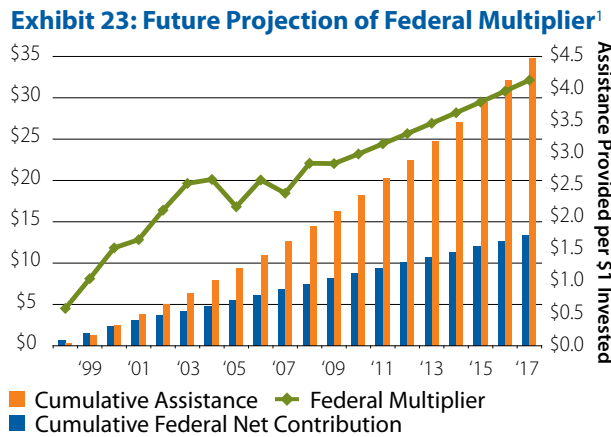
of assistance by 2017, which is consistent with the growth of the CWSRF in its second decade.

The projected increase in new funds for projects also shows robust acceleration. Exhibit 24 projects the increase in new funds available from approximately \$1.6 billion in 2007 to more than \$3 billion in the next decade. This growth is not driven by increases in contributions from the federal or state governments; rather, it is a result of the collective effort of drinking water systems as they repay their principal and interest.

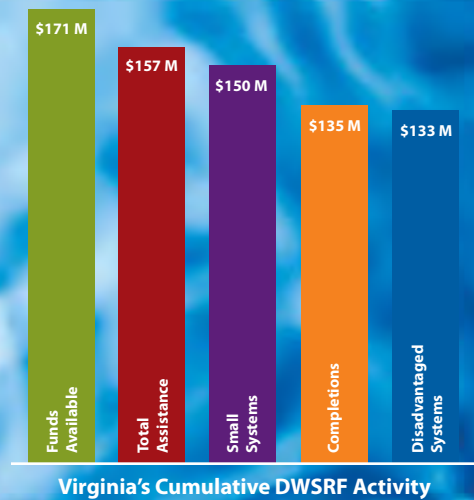
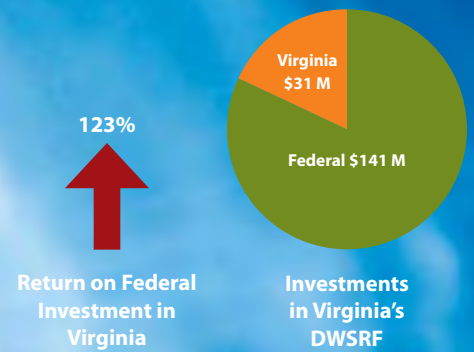
Conclusion

The DWSRF's public health benefits are possible because of the strong financial performance of the DWSRF program. These public health benefits are increasing due to the states' success in combining the support from the federal and state governments with the growing loan repayments to create true revolving funds. The financial trends of the DWSRF over the past decade are impressive and should remain so as the program continues to mature.

The Virginia DWSRF program has consistently been a national leader in providing assistance to small, disadvantaged PWs. VDH helps communities gain access to the assistance they need through partnerships and agreements with other agencies and organizations throughout the state. VDH has also developed an innovative receivership program designed for drinking water systems lacking managerial and technical capacity, and has creatively used DWSRF set-asides to help provide additional technical and financial assistance to disadvantaged drinking water systems.



1. Modeled projections based on DWSRF Financial Planning Module and additional modeling of DWNIMS data. Assumes annual capitalization grant is \$842 million through 2018.



Virginia's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$5.0 M	\$1.8 M
State Program Mgmt (10%)	1452(k) Activities (15%)
\$5.5 M	\$5.5 M

Funds Available	\$2,686 M
Loan Agreements	705
Value of Loans	\$2,435 M
Fund Disbursements	\$1,894 M
Assistance as % Funds Available	91%
Set-Aside Spending Rate	91%
Return on Federal Investment	279%

New Jersey

Department of Environmental Protection;
Environmental Infrastructure Trust



Worked with technical assistance providers to develop an outreach program that helps drinking water systems understand the DWSRF Program's purpose and benefits and apply for funding.

Puerto Rico

Department of Health (Departamento de Salud); Government Development Bank for Puerto Rico (Banco Gubernamental de Fomento para Puerto Rico), Puerto Rico Infrastructure Financing Authority (Autoridad para el Financiamiento de la Infraestructura de Puerto Rico)



Used set-aside funds to develop a pilot project to measure the effectiveness of circuit riders in helping small CWSs achieve and maintain capacity.

3. Achieving Sustainable Infrastructure

Financing America's water infrastructure requires a multi-faceted approach by public and private stakeholders. For this reason, EPA developed its "four pillars" strategy for sustainable infrastructure, which focuses efforts on full-cost pricing, better management, water efficiency, and watershed approaches. In addition to targeting the most serious public health threats, the DWSRF was founded on and continues to support the principles of sustainable infrastructure upheld by these four pillars.

Building sustainability is particularly important for the changing environment in which drinking water systems operate. Since the DWSRF's inception, regulatory requirements have become more numerous and complex, construction and energy costs have increased significantly, and the choice of compliance options—particularly treatment technologies—has expanded. At the same time, more attention is being paid to the impact of climate change on the nation's water supplies, particularly water scarcity.



The ways in which EPA and states have used the DWSRF to support sustainable infrastructure have evolved over the past 10 years to address emerging needs while maintaining the program's core focus on targeting the most significant public health threats.

Full-Cost Pricing (Pillar 1)

The full-cost pricing pillar recognizes that the burden of infrastructure investments is borne primarily by drinking water system customers through the rates they pay. While difficult to achieve in practice, full-cost pricing offers the advantages of efficiency and equity in placing the consumer at the center not only of infrastructure financing but also of operations and maintenance.

Nevertheless, full-cost pricing can impose hardships on customers of smaller drinking water systems, who bear significantly higher per-household costs than customers of larger systems. While many larger communities and drinking water systems can easily obtain access to private capital markets, small drinking water systems or disadvantaged communities have a much harder time obtaining affordable long-term financing.

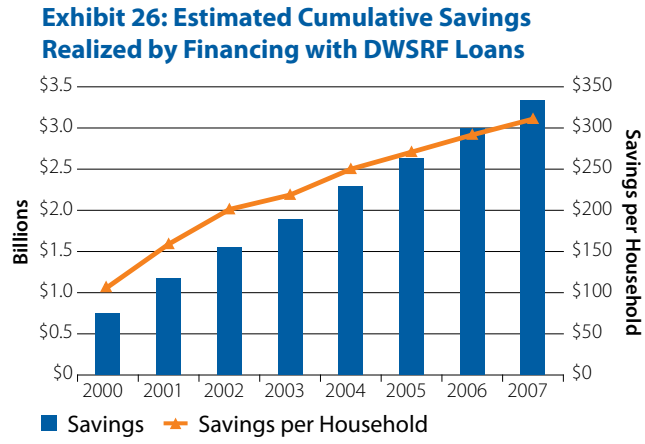
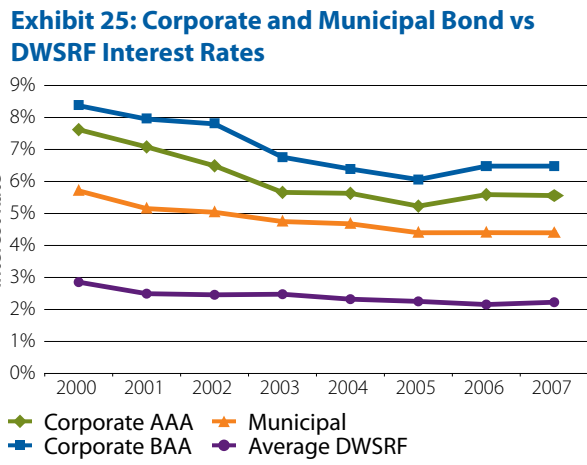
Beyond providing drinking water systems with the means and incentives to invest in their infrastructure now, states use DWSRF loans and set-asides to further encourage responsible and forward-thinking financial management. States use

ranking systems to prioritize loan applicants and can award priority points to loan applicants that implement full-cost pricing. States also use DWSRF set-asides to help drinking water systems understand and develop rate structures that allow for full-cost recovery.

Full-Cost Pricing is Easier with Savings from the DWSRF

For 10 years, the DWSRF has enabled drinking water systems to make affordable investments in critical infrastructure and simultaneously transition towards full-cost pricing. DWSRF loans and set-asides can help PWSs implement long-term, cost-effective solutions to avoid public health problems, rather than resort to short-term fixes that will cost more in the long run. Immediately replacing unreliable and deteriorating infrastructure guarantees stronger public health protection. Systems that invest now will also save money on operations and maintenance because new equipment is less expensive to maintain and less likely to fail.

States consistently charge below-market interest rates on DWSRF loans (Exhibit 25), which translates into significant estimated savings for drinking water systems. In 2007, the average DWSRF interest rate was more than 2% lower than the municipal rate. With a subsidized interest rate, a drinking water system financing a \$20 million project with a 20-year DWSRF loan would save \$9.4 million over the life of the project. These savings translate into more affordable water rates for consumers. Over the lifetime of the DWSRF, loan recipients have saved over \$3 billion—an average of nearly \$300 per household served by systems receiving assistance (Exhibit 26).

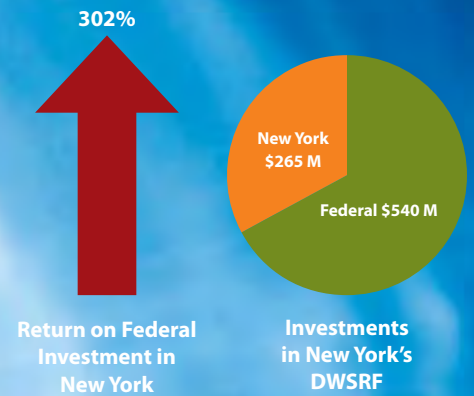


Region 2 Award Winner: **New York**

Department of Health; Environmental Facilities Corporation



The New York DWSRF program demonstrates innovation through its use of short-term financing and loan guarantees. The program has increased its pace by providing borrowers with 3-year financing, for which the application process is shorter and less complex (enabling borrowers to access money more quickly). In 2007, New York began offering loan guarantees, facilitating DWSRF financing for terms of 30 years. Financial assistance is provided in the form of an interest subsidy for the first 20 years and as a payment guarantee for all remaining principal maturities.



New York's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$20.5 M	\$9.8 M
State Program Mgmt (10%)	1452(k) Activities (15%)
\$13.9 M	\$5.9 M

Funds Available	\$1,378 M
Loan Agreements	574
Value of Loans	\$1,243 M
Fund Disbursements	\$982 M
Assistance as % Funds Available	90%
Set-Aside Spending Rate	78%
Return on Federal Investment	199%

Connecticut

Department of Public Health; Department of Environmental Protection; Office of the Treasurer



Allows drinking water systems to reserve a portion of their assistance to fund water system management and source water protection.

Maine

Department of Human Services; Municipal Bond Bank



Used the 10% set-aside to hire 13 additional staff to support the state's Drinking Water Program.

Massachusetts

Water Pollution Abatement Trust; Division of Municipal Services; Division of Watershed Management, Drinking Water Program



Uses set-aside funds to fund leak detection and water conservation programs.

New Hampshire

Department of Environmental Services



Uses set-asides to contract with the Society for the Protection of New Hampshire's Forests to help drinking water systems prioritize projects for land acquisition and facilitate purchases.

Vermont

Water Supply Division; Facilities Engineering Division



Established a program to provide loans to municipally owned drinking water systems for the purchase of land or conservation easements.

The Costs of Delay

Drinking water systems that defer needed infrastructure improvements because they do not believe they can afford them will only face increased costs in the future—as well as more significant risks to public health and higher operation and maintenance costs in the immediate future. Notably, construction and building costs have been rising faster than the rate of inflation since 2003 (Exhibit 27). Between 2003 and 2007, the Engineering News-Record (ENR) Construction Cost Index (CCI) and the Building Cost Index (BCI) increased by more than 20%. These increases were due in part to growing demand for raw materials in Asia, and they are expected to continue in the long term. Labor costs are also expected to increase—construction worker wages increased by 20% between 2001 and 2007. Given these sharp increases, drinking water systems can benefit significantly by making infrastructure investments today. Exhibit 28 shows the estimated cost of delaying a \$1 million project based on average annual construction cost increases since 2000. Delaying a project by only 5 years can result in a near 20% increase in construction costs.



Exhibit 27: Increasing Construction and Building Costs²

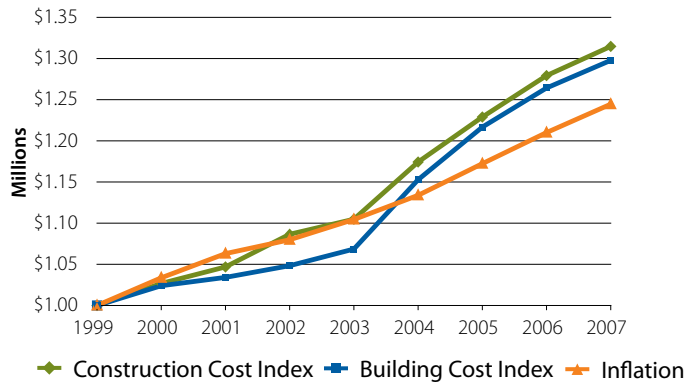
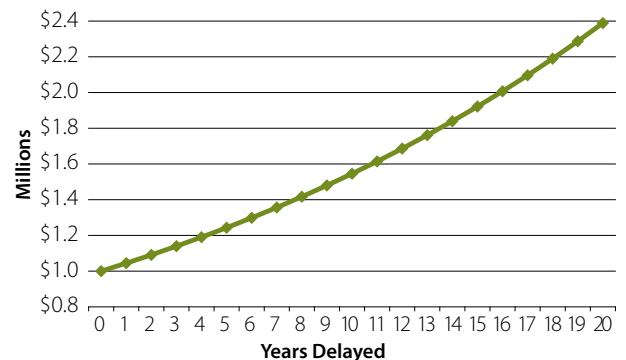


Exhibit 28: Cost of Delay³



2. The BCI is built using 68.38 hours of skilled labor of bricklayers, carpenters, and structural ironworkers rates, plus standard quantities of steel shapes at the mill price, portland cement, and 2 x 4 lumber. The CCI is built using the same base materials as the BCI and adding 200 hours of common labor.
 3. Net present value of projects delayed by 0-20 years assuming: \$1 million project cost; increasing construction costs equal to 3.59% per year (average annual % change of CCI index from 2000-2006); 20-year loan at 3% interest; and 3% discount rate.

By using the DWSRF to upgrade their infrastructure immediately, drinking water systems realize financial savings, customers benefit from increased public health protection and reliability of service as soon as the projects are completed, and the entire community may benefit from increased economic growth. Delays result in greater financial costs and public health risks as long as the PWS relies on dilapidated infrastructure.

Better Management (Pillar 2)

The better management pillar focuses on the implementation of best management practices—such as strategic planning, asset management, and environmental management systems—to improve drinking water system sustainability and performance and to reduce cost. States ensure that every borrower has adequate

managerial, technical, and financial capacity; all 5,346 DWSRF loan recipients so far have met this sustainability threshold for improved management.

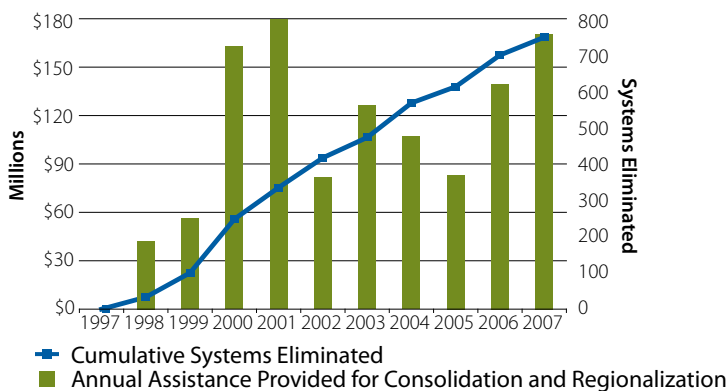
States may offer priority points to applicants that have implemented asset management plans or environmental management systems. States can also use DWSRF money to identify drinking water systems that lack the necessary managerial capacity to consistently supply safe drinking water and to provide financial incentives for them to pursue regionalization or consolidation with other systems. For example, South Carolina has offered DWSRF loans at reduced

interest rates to encourage viable drinking water systems to assume ownership and operation of non-viable systems. Funding for consolidation has increased each year since 2005. Since 1997, over \$1.1 billion in loans has been used to eliminate nearly 750 non-viable drinking water systems through consolidation (Exhibit 29).

Cushing, Oklahoma

The Cushing Municipal Authority secured a low-interest \$4.6 million DWSRF loan to construct a new water treatment plant, eight new wells, and an elevated water storage tank and to install approximately 42,500 feet of water lines. The new plant and wells replaced a 70-year-old, non-compliant surface water system. These improvements have brought Cushing into compliance with all state and federal regulations.

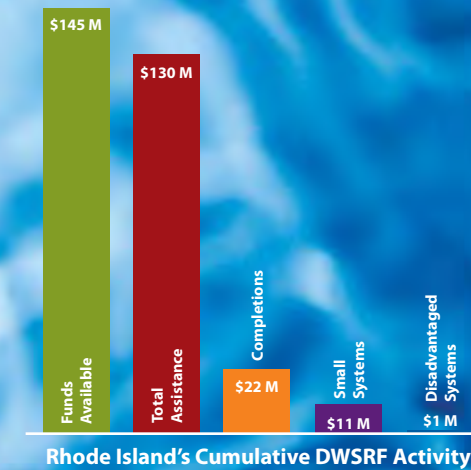
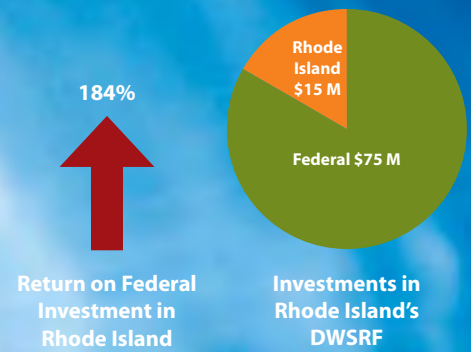
Exhibit 29: Consolidation and Regionalization of Drinking Water Systems



Region 1 Award Winner: Rhode Island

Clean Water Finance Agency (CWFA); Department of Health

Rhode Island has transformed its DWSRF program from a small direct loan program into a large, aggressively leveraged fund providing a high level of assistance for the state's ever-growing drinking water infrastructure needs. The Rhode Island CWFA used innovative lending practices and formed valuable partnerships to improve public health protection for the community of Pawtucket while maintaining affordable water rates. The CWFA worked with non-DWSRF loan sources to refinance the system's \$27 million in existing capital debt with a flexible repayment schedule, allowing Pawtucket to purchase the system. The CWFA then leveraged DWSRF funds, enabling the state to provide over \$100 million in loans to Pawtucket to cover planning and construction costs. This project is the largest funding package provided by the state to date.



Rhode Island's Set-Aside Summary



Cumulative Spending	
Administrative (4%)	Small Systems TA (2%)
\$650,000	\$670,000
State Program Mgmt (10%)	1452(k) Activities (15%)
\$5.0 M	\$5.3 M

States use DWSRF set-aside funds to help drinking water system personnel develop critical technical, managerial, and financial skills. In 2007 states used the 2% Small Systems Technical Assistance and the 15% Local Assistance set-asides to strengthen drinking water system management at thousands of CWSs (Exhibit 30).



States have used set-asides to help drinking water systems understand the importance of and implement long-term management plans, as well as form partnerships with other systems, professional and trade organizations, and technical assistance organizations to share knowledge. States have also used the 10% State Program Management set-aside to fund operator certification activities that ensure drinking water system operators are trained in all aspects of system operation and management and can respond to public health emergencies.

Water Efficiency (Pillar 3)

There has been a notable increase in the recognition of the importance of water efficiency since the inception of the DWSRF. In turn, DWSRF funding has been critical in strengthening the efficiency pillar. Efficient water use reduces

drinking water systems' costs and can prolong the useful life of infrastructure. Perhaps more important, efficient water use will be critical to ensuring the continued availability of sufficient quantities of safe drinking water in some areas of the country.

Having a source of low-cost financing provides systems with the opportunity to consider more efficient treatment technologies or other infrastructure upgrades that will ensure more efficient water use in the long-term. DWSRF loans can be used to fund installation of water meters, installation or retrofit of water-efficient devices (e.g., appliances and plumbing fixtures), and installation of a dual pipe distribution system as a means of lowering costs of treating water to potable standards. Loans can also be used

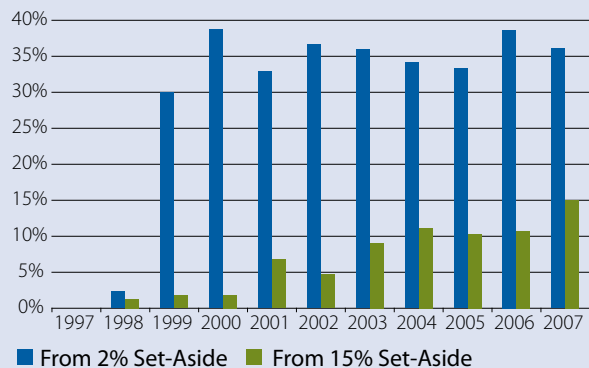
Voice of Experience: Richard Sarver, Washington Department of Health

Richard Sarver was the State of Washington's DWSRF Program Manager for 10 years and served as a member of the State/EPA SRF Work Group during the first 3 years of the DWSRF program.

"The DWSRF's success comes from state flexibility. Flexibility is provided by the SDWA and by EPA's commitment to work closely with states in developing program policies and rules. At the outset, EPA established the State/EPA SRF Work Group to help identify issues and options. With about 30 state and EPA representatives at the table, discussions were often spirited and always insightful. State representatives worked with organizations such as the Association of State Drinking Water Administrators to broaden the local perspectives they brought to the table. EPA also solicited input from other interested parties, but made sure state program administrators had input into policy decisions. The result was recognition of broad diversity among state needs and local flexibility to each state to address those needs. This led to local creativity and innovation, which is often shared with other states. I also give kudos to the Council of Infrastructure Financing Authorities for their assistance in policy development as well as the training and networking opportunities provided through their annual SRF workshops.

The bottom line is the program is doing exactly what it was intended to do. States use the funds to help ensure delivery of safe and reliable drinking water to our citizens. Loan funds are growing and revolving. As long as EPA continues to work closely with their administrative partners, the program should continue to thrive."

Exhibit 30: Annual Percent of CWSs Receiving Technical Assistance



to develop incentive-based efficiency programs (e.g., rebates and conservation rate structures) as part of a larger project. Many states, such as Colorado and Texas, also require drinking water systems to have efficiency plans in place as a prerequisite for receiving DWSRF funding or offer priority points for such plans.

States can use DWSRF set-asides to fund water efficiency initiatives such as leak detection programs, efficiency audits, drought monitoring, conservation rate structures, public education programs, water efficiency plans, and conservation ordinances or regulations.

Indiana

After the revised arsenic standard went into effect in January 2006, Indiana identified approximately 80 (primarily very small) drinking water systems that required a combined \$2.5 million in compliance assistance. In May 2006, the state established the Arsenic Remediation Grant Program. The Program combines DWSRF set-aside funds for treatment facility planning and design costs and state monies to cover construction costs. The DWSRF Program can now offer grants up to \$100,000 to small PWSs. Sixteen applications have been submitted, and over \$220,000 in grants have been disbursed.

Watershed Approach (Pillar 4)

The watershed pillar promotes the use of watershed-based, cost-effective alternatives to traditional treatment. For drinking water systems, the most important aspect of this is source water protection. The DWSRF played an important role in ensuring that states had the resources to conduct required source water assessments for all PWSs; in 1997, 42 states took a one-time opportunity to reserve the maximum set-aside amount to conduct assessments. Drinking water systems can build on these source water assessments by using DWSRF loans to acquire land or conservation easements to protect drinking water sources.

In addition, DWSRF set-asides can fund a broad range of voluntary, incentive-based, and community-oriented source water protection activities, including constructing fences around surface water supplies, capping wells, and conducting public outreach (e.g., holding workshops on hazardous waste disposal). States can also use set-asides to administer and provide technical assistance through the state source water protection program.

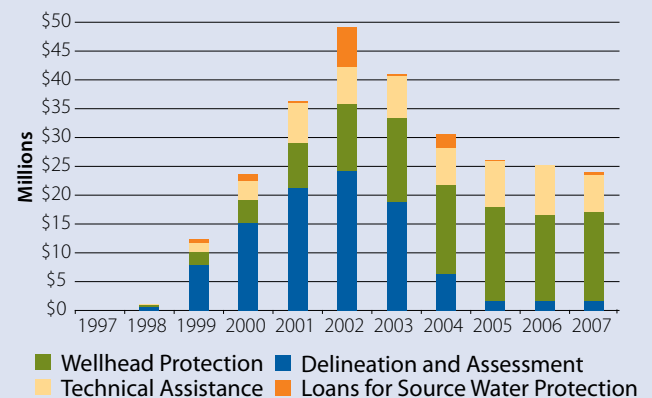
In total, nearly \$214 million in set-asides have supported loans for land acquisition and conservation easements, wellhead protection, source water protection area delineation and assessment, and loans for incentive-based source water protection measures. States used these set-asides to meet source water assessment requirements, as shown by the peak in funding in 2002 (Exhibit 31), and continue to use set-aside funds to ensure that drinking water systems and communities are actively working to protect watersheds.

Using its 15% Local Assistance set-aside, North Carolina initiated a campaign to educate state and local officials, businesses and industries, drinking water system staff, and the general public about wellhead protection. The state also contracted with a technical assistance provider to help communities develop and implement wellhead protection plans and conduct inspections and sanitary surveys at ground water systems. Pennsylvania used its 10% State Program Management set-aside to hire an environmental planner to develop and administer local source water protection grants and to deliver training to drinking water system and field staff.

Ongoing Importance of the DWSRF

Ensuring long-term sustainability, particularly for small drinking water systems, will continue to be a challenge. States have used DWSRF funding to provide drinking water systems with long-term planning tools and knowledge to prepare to respond to regulatory, financial, technological, and environmental changes. The program's built-in flexibility allows EPA and states to continue to ensure that funding is used in the most appropriate and effective way to support the four pillars of sustainable infrastructure in the future.

Exhibit 31: Annual Source Water and Wellhead Protection Program Assistance



4. Future of the DWSRF

Given the remarkable financial success of the DWSRF and its contribution to public health protection nationwide, the future of this program is bright. State DWSRF programs have carved out a niche within the lending market as a reliable source of funding for drinking water infrastructure, especially for the systems most in need. Because of rising infrastructure needs, complex new drinking water regulations, and the tightening of credit markets and state and local budgets, the demand for DWSRF financing will only increase. Building on its foundation of success, the DWSRF will continue to grow and meet the needs of drinking water systems across the country.

Increasing Infrastructure Needs

Drinking water infrastructure needs continue to rise as systems nationwide struggle to provide safe drinking water using outdated and deteriorated infrastructure. The 2003 DWINSA estimated the national infrastructure need at \$276.8 billion, which is approaching the estimates of the 1995 and 1999 DWINSAs combined (Exhibit 32).

Drinking water systems have continued to increase infrastructure investments and the DWSRF continues to grow. However, these investments have not kept pace with total need. The 2002 Clean Water and Drinking Water Infrastructure Gap Analysis identified a potential gap between needs and spending ranging from \$45 billion (under a 3% revenue growth scenario) to \$263 billion (under a no revenue growth scenario) by 2020. In 2005, the American Society of Civil Engineers estimated that the annual drinking

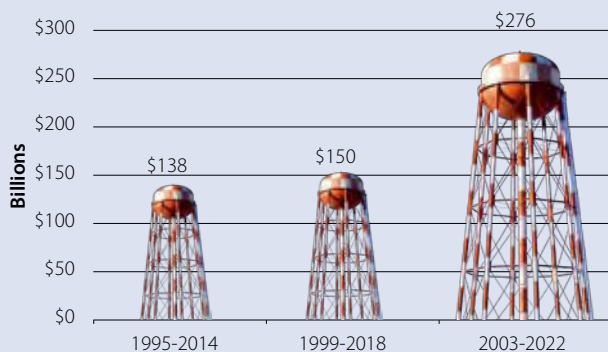


water infrastructure shortfall is at least \$11 billion. This funding gap is expected to continue growing through 2020, driven primarily by pipe replacement needs as distribution systems exceed their useful lives (Exhibit 33). In addition, many drinking water systems are just now realizing the gap between their capital needs and available funding as critical system components deteriorate beyond repair. DWSRF funding will be vital in helping drinking water systems keep pace with their significant infrastructure needs.

Program Changes

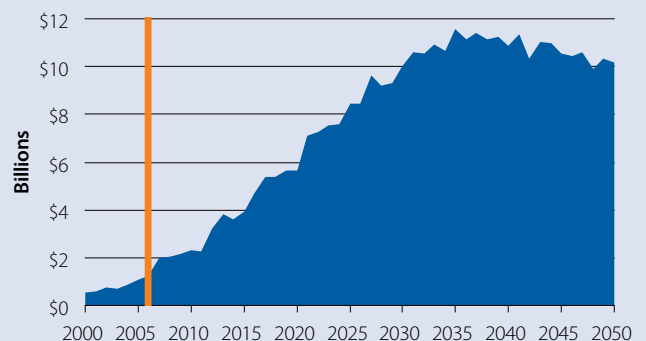
As the DWSRF matures, the focus of each state's program will change to align with the needs of their drinking water systems. For example, now that state programs are mature, states are modifying program goals towards the long-term needs of drinking water systems. Many states are also updating their project priority lists, creating dynamic

Exhibit 32: 20-Year Demand for Funds⁴



4. EPA's DWINSAs of 1995, 1999, and 2003.

Exhibit 33: Projected Pipe Replacement Needs⁵



5. EPA's 2002 Clean Water and Drinking Water Infrastructure Gap Analysis.

Voice of Experience: Don Niehus, EPA Region 3 SRF Team Leader

Don Niehus is the Region 3 SRF Team Leader. He has been involved with the DWSRF program since 1996 and is co-author of the first draft of the DWSRF Initial Guidance.

“Looking back over the last 20 years, the SRF programs have evolved to become EPA’s biggest programs and have achieved widespread respect and support for their environmental and public health accomplishments.

Congress appropriately gave states the authority to manage the DWSRF program. States have ably risen to the challenge and are to be commended for their successes. The EPA regions have assisted the states in successfully implementing the DWSRF program through providing technical assistance, sharing “best practices,” and conducting program oversight which identified areas for improvement. The regions continue to work with the states on challenges such as expediting fund expenditures and encouraging creative and effective use of set-aside funds.”

processes that accurately reflect systems’ readiness to proceed and the likelihood to receive funding. States have also increased overall DWSRF set-aside spending in recent years and will continue to use set-aside funds to assist drinking water systems most in need, particularly in light of new regulations.

Future Projections

The value of the DWSRF will continue to increase as drinking water systems repay interest and principal from loans. EPA predicts that the DWSRF’s revenues from interest earnings, interest payments on loans, and principal repayments will grow to \$2.4 billion by 2018 and \$4.2 billion by 2038, an increase of almost 400% compared to 2007 (Exhibit 34). As the DWSRF grows, more funds will be available to finance critical infrastructure projects. Annual DWSRF disbursements are predicted to increase 88% over the next 30 years, rising to \$2.6 billion by 2018 and more than \$3 billion by 2038 (Exhibit 35).



The DWSRF **will continue to grow** and meet the needs of drinking water systems across the country

Exhibit 34: Projected Cumulative DWSRF Interest and Principal Repayments⁶

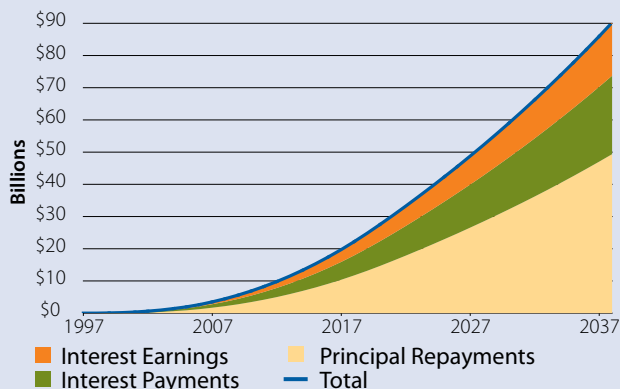
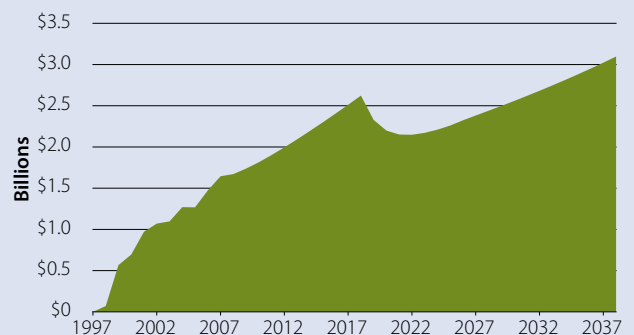


Exhibit 35: Projected Annual Project Disbursements⁶



5. Financial Details

EPA has produced the following joint financial statements for the DWSRF program based on data reported by states:

- A Statement of Net Assets
- A Statement of Revenues, Expenses, and Earnings
- A Statement of Cash Flows

The statements are best thought of as un-audited financial reports that provide information on program performance.

Highlights

Statement of Net Assets

The Statement of Net Assets (Exhibit 38) describes the DWSRF's assets and liabilities at the end of Fiscal Year (FY) 2007. Assets include both financial and capital assets, such as grant funds drawn from the federal treasury, but do not include total grant awards. Liabilities include leveraged bonds and match bonds, which account for both current and long-term liabilities. The set-aside funds have no liabilities. Total assets of the loan funds have increased every year of the DWSRF program (cumulative growth in assets is displayed in Exhibits 36 and 37).

- Total assets of the loan funds were \$12.3 billion in 2007, an increase of 12.5% over 2006. Outstanding loans account for 66% of the program's assets.
- State and federal contributions make up about 90% of the \$7.8 billion in DWSRF program equity or net assets.
- Total assets increased by \$1.4 billion from 2006 to 2007.

Statement of Revenue, Expenses, and Net Earnings

The Statement of Revenue, Expenses, and Net-Earnings (Exhibit 41) describes the operating and nonoperating

revenues and expenses of the funds at the end of FY 2007. Operating revenues and expenses include interest from fund investments and DWSRF loans and expenses from bond interest and amortized bond issuance. Nonoperating revenues and expenses include state and federal contributions. The operating revenues and expenditures of the set-aside funds have remained relatively stable since 2001 (Exhibits 39 and 40).

- Annual operating revenues of the loan fund increased by \$65.7 million from 2006 to 2007, an increase of 20%; most of this increase was generated by interest on fund investments.
- Annual operating expenses for 2007 rose \$8.8 million to \$185 million, a 5% increase over 2006.
- Total revenue of the loan fund exceeded total expenses by \$1.11 billion in 2007, a 12% increase over 2006 and the largest amount by which total revenue has exceeded total expenses in the program's history.

Statement of Cash Flows

The Statement of Cash Flows (Exhibit 42) provides a detailed accounting of cash flows into and out of the DWSRF program. Cash flows into the fund include loan principal repayments, interest received on loans, and contributions from states. Flows out of the fund include loan disbursements to be repaid and bond issuance expense.

- For the loan fund, loan disbursements to be repaid totaled \$1.6 billion in 2007, a 12.9% increase over 2006.
- Loan principal repaid increased by \$99.7 million to \$455.5 million, an increase of 28% over 2006 repayments.
- Leveraged bond proceeds added \$403.3 million to program cash flow.

Exhibit 36: Cumulative DWSRF Net Assets

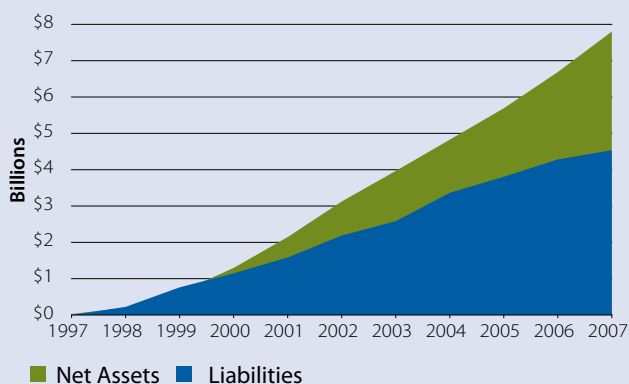


Exhibit 37: Cumulative Growth of DWSRF Assets

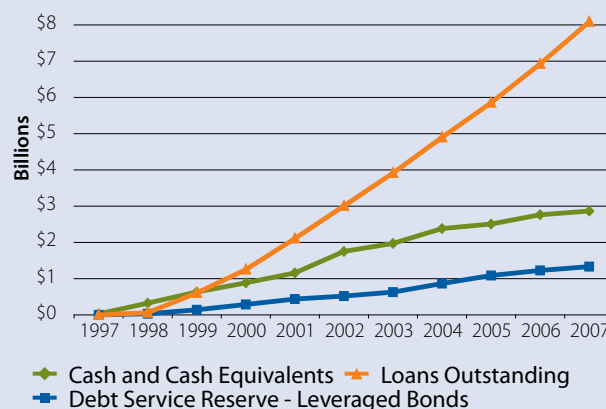


Exhibit 38: Statement of Net Assets—Loan Funds (millions of \$)

	2007	2006	2005	2004	2003
Assets					
Cash and Cash Equivalents	2,865.8	2,763.9	2,506.7	2,382.4	1,972.7
Debt Service Reserve - Leveraged Bonds	1,332.3	1,227.1	1,087.7	865.2	628.6
Loans Outstanding	8,084.5	6,925.4	5,851.8	4,898.3	3,914.2
Unamortized Bond Issuance Expenses	55.1	53.0	48.0	44.2	34.6
<i>Total Assets</i>	<i>12,337.7</i>	<i>10,969.3</i>	<i>9,494.2</i>	<i>8,190.2</i>	<i>6,550.0</i>
Liabilities					
Match Bonds Outstanding	315.0	319.9	289.7	256.6	194.8
Leveraged Bonds Outstanding	4,220.2	3,962.0	3,515.1	3,107.7	2,387.9
<i>Total Liabilities</i>	<i>4,535.2</i>	<i>4,281.8</i>	<i>3,804.8</i>	<i>3,364.3</i>	<i>2,582.6</i>
Net Assets					
Federal Contributions	5,494.5	4,677.6	3,933.3	3,296.2	2,587.3
State Contributions	1,471.5	1,372.3	1,255.2	1,140.9	1,001.1
Transfers - Other SRF Funds	387.5	374.8	354.8	310.1	318.4
Other Net Assets	449.0	262.8	1,46.1	78.6	60.6
<i>Total Net Assets</i>	<i>7,802.5</i>	<i>6,687.5</i>	<i>5,689.4</i>	<i>4,825.9</i>	<i>3,967.4</i>
Total Liabilities & Net Assets	12,337.7	10,969.3	9,494.2	8,190.2	6,550.0

Statement of Net Assets—Set-Aside Funds (millions of \$)

	2007	2006	2005	2004	2003
Assets					
Cash and Cash Equivalents	3.4	2.5	1.5	1.1	0.9
Loans Outstanding	4.7	4.4	4.9	4.9	2.4
<i>Total Assets</i>	<i>8.1</i>	<i>7.0</i>	<i>6.4</i>	<i>6.1</i>	<i>3.3</i>
Liabilities					
<i>Total Liabilities</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Net Assets					
Federal Contributions	955.3	826.7	702.8	588.4	476.1
Other Net Assets	(947.2)	(819.7)	(696.3)	(582.4)	(472.7)
<i>Total Net Assets</i>	<i>8.1</i>	<i>7.0</i>	<i>6.4</i>	<i>6.1</i>	<i>3.3</i>
Total Liabilities & Net Assets	8.1	7.0	6.4	6.1	3.3

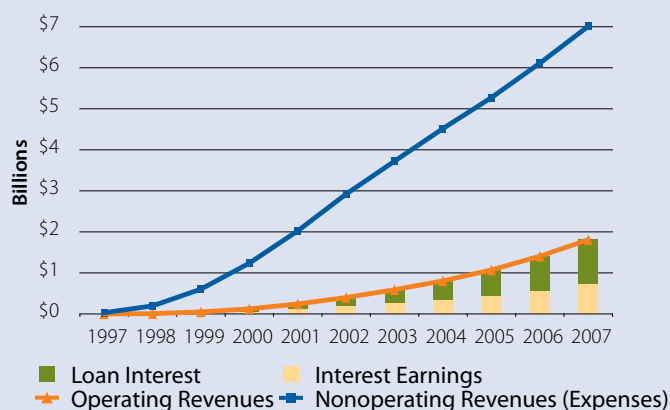
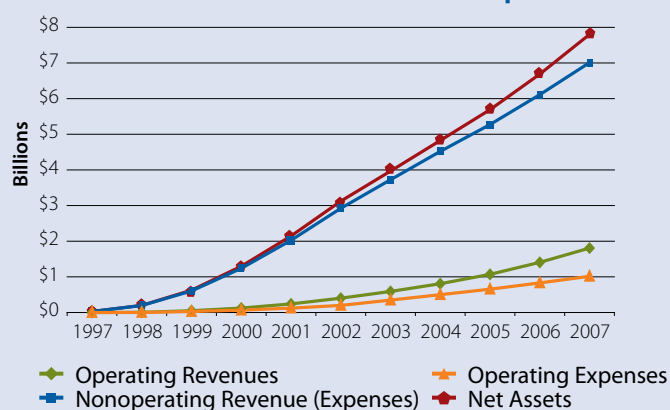
Exhibit 39: Cumulative DWSRF Revenue**Exhibit 40: Cumulative Revenue and Expenses**

Exhibit 41: Statement of Revenue, Expenses, and Net Earnings (millions of \$)

	2007	2006	2005	2004	2003
Operating Revenues					
Interest on Fund Investments	160.2	129.5	92.7	67.9	74.4
Interest on DWSRF Loans	241.0	206.0	171.2	148.5	115.5
<i>Total Operating Revenues</i>	<i>401.2</i>	<i>335.5</i>	<i>263.9</i>	<i>216.4</i>	<i>189.9</i>
Operating Expenses					
Bond Interest Expense	182.1	169.6	149.8	119.8	99.4
DWSRF Funds Used for Refunding	0.0	3.9	2.1	31.1	47.1
Amortized Bond Issuance Expense	2.6	2.4	2.2	1.7	1.6
<i>Total Operating Expenses</i>	<i>184.7</i>	<i>175.9</i>	<i>154.2</i>	<i>152.7</i>	<i>148.1</i>
Nonoperating Revenues and Expenses					
Federal Contribution	816.9	744.3	637.0	708.9	591.5
State Contributions	99.3	117.1	114.3	139.9	157.5
Loan Forgiveness Expenses	(30.4)	(42.9)	(42.2)	(45.7)	(34.5)
Transfers from (to) CWSRF	12.7	20.9	44.7	(8.3)	86.8
<i>Total Nonoperating Revenues and Expenses</i>	<i>898.4</i>	<i>838.5</i>	<i>753.7</i>	<i>794.8</i>	<i>801.4</i>
Increase (Decrease) in Net Assets	1,115.0	998.1	863.5	858.5	843.1
Net Assets					
Beginning of Year	6,687.5	5,689.4	4,825.9	3,967.4	3,124.3
End of Year	7,802.5	6,687.5	5,689.4	4,825.9	3,967.4

Statement of Revenue, Expenses, and Net Earnings (millions of \$)

	2007	2006	2005	2004	2003
Operating Revenues					
Interest on 1452(k) Loan Account Investments	0.11	0.06	0.02	0.01	0.01
Interest on 1452(k) Loans	0.15	0.19	0.03	0.04	0.04
<i>Total Operating Revenues</i>	<i>0.26</i>	<i>0.25</i>	<i>0.06</i>	<i>0.05</i>	<i>0.04</i>
Operating Expenses					
Administrative Expenses Under the 4% Set-Aside	32.0	30.1	28.1	26.6	27.7
Expenses Under the 2% Set-Aside, Small Systems Technical Assistance	13.8	14.0	13.9	11.6	10.7
Expenses Under the 10% Set-Aside, State Program Management	49.5	49.4	43.2	39.1	40.2
Grants made under the 1452(k) Set-Aside	32.4	30.1	28.8	32.4	40.9
<i>Total Expenses</i>	<i>127.7</i>	<i>123.6</i>	<i>114.0</i>	<i>109.7</i>	<i>119.5</i>
Nonoperating Revenues and Expenses					
Federal Contribution	128.6	123.9	114.3	112.4	119.9
<i>Total Nonoperating Revenues (Expenses)</i>	<i>128.6</i>	<i>123.9</i>	<i>114.3</i>	<i>112.4</i>	<i>119.9</i>
Increase (Decrease) in Net Assets	1.1	0.5	0.4	2.8	4.0
Net Assets					
Beginning of Year	7.0	6.4	6.1	3.3	2.9
End of Year	8.1	7.0	6.4	6.1	3.3

Exhibit 42: Statement of Cash Flows—Loan Funds (millions of \$)

	2007	2006	2005	2004	2003
Operating Activities					
Loan Disbursements to be Repaid	(1,614.6)	(1,429.5)	(1,225.9)	(1,224.1)	(1,062.5)
Loan Principal Forgiven	(30.4)	(42.9)	(42.2)	(45.7)	(34.5)
Loan Principal Repayments	455.5	355.8	272.5	240.0	154.8
Interest Received on Loans	241.0	206.0	171.2	148.5	115.5
Contributions from States	99.3	117.1	114.3	139.9	157.5
Cash Draws from Federal Capitalization Grants	816.9	744.3	637.0	708.9	591.5
<i>Total Cash Flows from Operations</i>	<i>(32.3)</i>	<i>(49.1)</i>	<i>(73.1)</i>	<i>(32.6)</i>	<i>(77.6)</i>
Noncapital Financing Activities					
Bond Issuance Expense	(4.7)	(7.4)	(6.0)	(11.4)	(4.6)
Interest Paid on Leveraged and State Match Bonds	(182.1)	(169.6)	(149.8)	(119.8)	(99.4)
DWSRF Funds Used for Refunding	0.0	(3.9)	(2.1)	(31.1)	(47.1)
Principal Repayment of Leveraged Bonds	(145.0)	(116.9)	(101.6)	(80.9)	(58.0)
Principal Repayment of State Match Bonds	(24.3)	(19.2)	(17.3)	(13.5)	(8.6)
State Match Bond Proceeds	19.4	49.3	50.4	75.4	29.0
Cash Received from Transfers with CWSRF	12.7	20.0	44.7	(8.3)	86.8
Gross Leveraged Bond Proceeds	403.3	563.8	509.0	800.7	433.4
<i>Total Cash Flows from Non-Capital Financing Activities</i>	<i>79.2</i>	<i>316.1</i>	<i>327.3</i>	<i>611.0</i>	<i>331.4</i>
Cash Flows from Capital and Related Financing Activities	0.0	0.0	0.0	0.0	0.0
Investing Activities					
Interest Received on Fund Investments	160.2	129.5	92.7	67.9	74.4
Deposits to Debt Service Reserve for Leveraged Bonds	(105.3)	(139.3)	(222.5)	(236.6)	(107.7)
<i>Total Cash Flows from Investing Activities</i>	<i>55.0</i>	<i>(9.8)</i>	<i>(129.8)</i>	<i>(168.7)</i>	<i>(33.3)</i>
Net Increase (Decrease) in Cash and Cash Equivalents	101.9	257.2	124.3	409.7	220.4
Beginning Balance - Cash and Cash Equivalents	2,763.9	2,506.7	2,382.4	1,972.7	1,752.3
Ending Balance - Cash and Cash Equivalents	2,865.8	2,763.9	2,506.7	2,382.4	1,972.7

Statement of Cash Flows—Set-Aside Funds (millions of \$)

	2007	2006	2005	2004	2003
Operating Activities					
Federal Contribution	128.6	123.9	114.3	112.4	119.9
1452(k) Loan Disbursements Made to Borrowers	(0.9)	(0.3)	(0.3)	(2.7)	(0.3)
1452(k) Loan Principal Repayments	0.7	0.7	0.4	0.2	0.4
Interest Received on 1452(k) Loans	0.1	0.2	0.0	0.0	0.0
Administrative Expenses Under the 4% Set-Aside	(32.0)	(30.1)	(28.1)	(26.6)	(27.7)
Expenses Under the 2% Set-Aside, Small Systems Technical Assistance	(13.8)	(14.0)	(13.9)	(11.6)	(10.7)
Expenses Under the 10% Set-Aside, State Program Management	(49.5)	(49.4)	(43.2)	(39.1)	(40.2)
Grants made under the 1452(k) Set-Aside	(32.4)	(30.1)	(28.8)	(32.4)	(40.9)
<i>Total Cash Flows from Operating Activities</i>	<i>0.8</i>	<i>0.9</i>	<i>0.4</i>	<i>0.2</i>	<i>0.4</i>
Noncapital Financing Activities					
<i>Net Cash Provided by Noncapital Financing Activities</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
Cash Flows from Capital and Related Financing Activities	0.0	0.0	0.0	0.0	0.0
Investing Activities					
Interest Earnings on 1452(k) Loan Account Investments	0.11	0.06	0.02	0.01	0.01
<i>Net Cash Provided by Investing Activities</i>	<i>0.1</i>	<i>0.1</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
Net Increase (Decrease) in Cash and Cash Equivalents	0.9	1.0	0.4	0.2	0.4
Beginning Balance - Cash and Cash Equivalents	2.5	1.5	1.1	0.9	0.5
Ending Balance - Cash and Cash Equivalents	3.4	2.5	1.5	1.1	0.9

DWSRF

At-a-Glance

Assistance Provided to Projects (\$ Millions)

	2007	1997-2007
Total, by Project Type	\$1,626.9	\$12,629.5
Planning and Design Only	29.2	114.0
Construction		
Treatment	691.9	5,503.8
Transmission & Distribution	579.8	4,272.9
Source	98.6	648.2
Storage	143.6	1,282.7
Purchase of Systems	44.7	151.2
Restructuring	0.2	46.6
Land Acquisition	9.4	35.2
Other	29.3	576.2
Total, by Population Served	\$1,626.9	\$12,629.5
Less than 501 Served	90.6	590.2
501 to 3,300	281.6	2,117.6
3,301 to 10,000	310.5	2,216.8
10,001 to 100,000	547.1	4,878.7
100,001 and Above	397.0	2,826.3
# of Loans, by Population Served	578	5,350
Less than 501 Served	101	1,019
501 to 3,300	204	1,816
3,301 to 10,000	106	1,017
10,001 to 100,000	124	1,171
100,001 and Above	43	327

Funds Available for Projects (\$ Millions)

	2007	1997-2007
Total Funds	\$1,626.9	\$14,420.0
Federal Capitalization Grants	796	8,129.0
State Match	118.7	1,875.0
Net Leveraged Bonds	(303.3)	3,438.5
Net Loan Principal Repayments	(310.5)	1,103.5
Net Interest Earnings	(194.8)	802.8
Net Transfers with CWSRF	12.7	381.6
Less Set-asides	109.1	1,310.4

Other Key Statistics

1.8x - Return on Federal Investment

2.2% - Average DWSRF Interest Rate in 2007 (vs. Market Rate of 4.2%)

20 - States that Leverage

47 - States that Conduct Separate Audits

10TH ANNIVERSARY

