



# Drinking Water State Revolving Fund

Protecting America's Public Health For 20 Years



20<sup>th</sup> Anniversary Edition  
2017 Annual Report

## A Message from the Office Director

I am pleased to present the Drinking Water State Revolving Fund 2017 Annual Report. This report commemorates the DWSRF's 20th anniversary, highlighting program accomplishments for 2017, in the context of the outstanding public health protection achieved through the DWSRF program over the past two decades.

The DWSRF program, authorized by Congress in the 1996 Amendments to the Safe Drinking Water Act, has become one of the nation's most important investments in public health protection. Over twenty years, states have signed more than \$35 billion worth of loans and other funding agreements with communities for drinking water infrastructure. This low-cost financing saves countless dollars for communities while expanding access to safe drinking water in homes, schools and businesses.

The DWSRF set-asides have also played a critical role in public health protection by facilitating the investment of over \$3 billion over the program's lifespan towards operator certification, water system capacity development and source water protection, as well as other activities that support safe drinking water.

As we move into the program's third decade, the DWSRF will play a central role in increasing the number of community water systems in compliance with health-based Safe Drinking Water Act standards. The EPA will also join with states to leverage additional infrastructure funding through the Water Infrastructure Finance and Innovation Act (WIFIA) program, U.S. Department of Agriculture (USDA) funds and other state and private sources of infrastructure funding, to meet the nation's growing water infrastructure needs.

We thank you for your support and dedication to public health over the past twenty years and for your commitment to the work ahead.

Sincerely,



Peter C. Grevatt, Ph.D., Director

Office of Ground Water and Drinking Water



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# DWSRF Timeline

## 1995

- EPA conducts the 1<sup>st</sup> Drinking Water Infrastructure Needs Survey

## 1996

- Congress passes Safe Drinking Water Act amendments, creating the Drinking Water State Revolving Fund

## 1997

- Nation's 1<sup>st</sup> DWSRF capitalization grant awarded to Georgia
- Nation's 1<sup>st</sup> DWSRF loan made to Williamsburg, PA for \$4.2 million

## I. Protecting Public Health for 20 Years

### A. Safe Drinking Water: The Foundation of Public Health

The health, well-being and economic vitality of our cities, towns and rural areas depends upon safe drinking water. Millions of Americans receive high-quality water every day from their public water systems. Nonetheless, the infrastructure and expertise necessary for ensuring safe drinking water require daily attention and cannot be taken for granted.

Congress passed the Safe Drinking Water Act (SDWA) in 1974 to protect America's public health by ensuring the safety of the nation's drinking water supply. The new law charged the U.S. Environmental Protection Agency (EPA) with developing health-based standards for drinking water contaminants. States, through their public health and environmental agencies, largely assumed primary enforcement authority (known as primacy) for these national standards. Water systems undertook day-to-day responsibility for compliance.

By the early 1980s, EPA regulations under SDWA addressed total coliform, turbidity, six synthetic organic chemicals, ten inorganic chemicals, three classes of radionuclides and total trihalomethanes. The discovery of additional contaminants in drinking water led Congress to substantially amend the SDWA in 1986, again with an emphasis on the development of standards, including requirements for filtration and disinfection of surface water.

### B. The DWSRF's Establishment and First Decade

The original 1974 SDWA and its 1986 amendments focused primarily on treatment as the means of providing safe drinking water at the tap. In 1996, Congress passed additional amendments that greatly enhanced the law by establishing a comprehensive "source to tap" approach. The 1996 amendments recognized water system capacity development, operator training, funding for water system infrastructure improvements, source water protection and the availability of information to the public as important components of ensuring safe drinking water.

The Drinking Water State Revolving Fund (DWSRF) was a major element of the 1996 amendments. The DWSRF was conceived to provide water systems with loans\* at below-market interest rates for infrastructure investments needed to achieve the SDWA's public health protection objectives. Congress modeled the DWSRF's infrastructure financing mechanisms on the successful Clean Water State Revolving Fund (CWSRF) program, authorized by amendments to the Clean Water Act in 1987. In a significant structural modification to the CWSRF model, Congress enabled the DWSRF to provide funding in the form of optional set-asides that states could use to assist water systems with developing the technical, managerial and financial (TMF) capacity to comply with the SDWA, as well as to carry out other activities to protect drinking water. Congress also made TMF capacity pre-requisite for water systems seeking to receive infrastructure assistance through the DWSRF.

### First Decade Summary

The DWSRF began operation in 1997 and has continued to receive annual capitalization grant funds appropriated by Congress and awarded to states by the EPA. Through state fiscal year 2007, the EPA awarded the 51 state DWSRF programs (the 50 states and Puerto Rico) over \$8.2 billion in federal capitalization grants. States used these funds -- combined with state matching funds, loan repayments and interest earnings, and optional leveraging by some states -- to award an annual average of \$1.2 billion in infrastructure assistance to water systems during the program's first decade. In sum, state DWSRF programs took the \$8.2 billion federal investment and leveraged it into \$12.6 billion in drinking water infrastructure investments between 1997 and 2007.

During the DWSRF's first ten years, state drinking water programs used the DWSRF set-asides to

\*The terms loans and assistance agreements are interchangeable.

## 1998

- Funds available for infrastructure projects exceed \$1 billion

## 1999

- EPA conducts 2<sup>nd</sup> DW Infrastructure Needs Survey
- 100<sup>th</sup> infrastructure project completed

## 2000

- 1,000<sup>th</sup> loan signed

## 2001

- Funds available for projects exceed \$5 billion

develop or strengthen their capacity development strategies and programs, focusing on operator certification, technical assistance, and wellhead and source water protection. States set aside approximately \$1.3 billion of the federal capitalization grants for these types of activities during the program's first ten years.

### C. The DWSRF's Second Decade

#### The Recovery Act

Responding to the Great Recession beginning in the late 2000s, Congress passed the American Recovery and Reinvestment Act (ARRA or Recovery Act) in February 2009. Congress designed the ARRA to preserve and create jobs, promote economic growth, and invest in environmental protection and infrastructure for long-term economic productivity. Recognizing the nation's significant drinking water infrastructure needs and the known efficacy of the DWSRF program, Congress appropriated a record-

\$2 billion in supplemental DWSRF funds as part of the ARRA.

State DWSRF managers responded by funding high-priority, ready-to-proceed water infrastructure projects and shepherding them expeditiously to completion. With ARRA supplemental and base program funding combined, state programs signed nearly 1,800 funding agreements worth \$3.9 billion for drinking water projects. For many states, this was twice the funding they typically lent in a year, accomplished in half the time of a typical funding cycle.

States provided 71 percent of the ARRA DWSRF funds as additional subsidization (grants, principal forgiveness, or negative interest rate loans), far exceeding Congress's 50 percent minimum requirement. Most of the additional subsidization went to economically disadvantaged communities.



## 2002

- Annual fund disbursements exceed \$1 billion
- 1,000<sup>th</sup> project completed

## 2003

- EPA conducts 3<sup>rd</sup> DW Infrastructure Needs Survey

## 2004

- Principal repayments and interest earnings “revolving” back to state DWSRFs reach \$1 billion

## 2005

- Funds available for infrastructure projects exceed \$10 billion

Congress included new provisions in the ARRA, some of which later became permanent in the base program:

- **Additional subsidization** – As mentioned above, Congress directed states to provide a certain percentage of the ARRA appropriation as grant or grant-like funds. This provision has continued in subsequent annual program appropriations, with some variation in the percentage.

- **Buy American** – Congress introduced a domestic procurement preference under the ARRA. In 2014, Congress reintroduced this concept into the DWSRF base program in the form of the American Iron and Steel (AIS) requirement. Congress has maintained the AIS requirement ever since.

- **Davis-Bacon wage rates** – All laborers and mechanics working on projects funded in whole or in part by ARRA funds were required to be paid prevailing wages as determined by the U.S. Department of Labor. Congress made this a permanent base program requirement in 2012.

- **Green Project Reserve** – Congress required

states to use at least 20 percent of ARRA capitalization funds to fund water efficiency improvements, energy efficiency improvements, green infrastructure and environmentally innovative activities. This provision later became optional for state DWSRF programs.

### Superstorm Sandy Response

Superstorm Sandy hit the east coast in October 2012 and severely damaged many drinking water systems, particularly in New Jersey and New York. Congress passed the Disaster Relief Appropriations Act (DRAA) in January 2013, resulting in provision to New Jersey and New York of \$38 million and \$57 million in supplemental DWSRF funds, respectively. Congress directed these funds for DWSRF projects that reduce water system flood damage risk and increase systems’ resiliency to withstand the effects of future severe storms. Communities have used the funding to install emergency standby diesel generators, demolish and replace damaged equipment, elevate wellheads, and construct additional storage.



## 2006

- Cumulative loans signed exceed \$10 billion
- EPA releases DWSRF Program Operations Manual

## 2007

- EPA conducts 4<sup>th</sup> DW Infrastructure Needs Survey
- 3,500<sup>th</sup> project completed
- 5,000<sup>th</sup> loan signed

## 2008

- States pilot the Projects and Benefits Reporting (PBR) system

## 2009

- American Recovery and Reinvestment Act (ARRA) provides \$2 billion in supplemental DWSRF funding

### The WIIN Act

In December 2016, Congress passed the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016. The WIIN Act contained the first significant DWSRF revisions to the underlying SDWA text in the program's twenty-year history. The WIIN Act gave state DWSRF managers new options to calculate the maximum amount that may be taken for the administration and technical assistance set-aside and eliminated the additional 1:1 match for the state program management set-aside for capitalization grants awarded after the Act's passage. These changes provide state managers with additional flexibility to craft their programs to meet the drinking water needs of the communities within their respective states.

### Flint, Michigan

Following the public health crisis in the City of Flint, Michigan, Congress appropriated \$100 million in supplemental DWSRF funding in December 2016 for the State of Michigan to fund projects and activities to reduce levels of lead in drinking water in Flint. In 2017, Michigan and the City allotted these funds for lead service line replacements, a corrosion control study, an asset management plan and other activities to address the public health emergency.

### DWSRF Second Decade Summary

Annual capitalization of the DWSRF continued through the program's second decade, including the base program funds appropriated by Congress alongside the supplemental ARRA funds in 2009. The EPA awarded the 51 state programs over \$11 billion in federal capitalization grants from the beginning of SFY 2008 through SFY 2017. Reflecting the growing, revolving nature of the program, states awarded an annual average of \$2.3 billion in infrastructure assistance to water systems, yielding a total investment of \$22.7 billion during the program's second decade. States allotted approximately \$1.7 billion of the federal capitalization grants for set-aside activities during this period.



## 2010

- ARRA spurs record-high annual loan signings: 1,800 loans worth \$3.9 billion
- Cumulative loans signed hits \$20 billion

## 2011

- EPA conducts 5<sup>th</sup> DW Infrastructure Needs Survey

## 2012

- Congress makes Davis-Bacon wage provision permanent for DWSRF projects

## 2013

- Disaster Relief Appropriations Act provides funding to NJ and NY for Superstorm Sandy
- 10,000<sup>th</sup> loan signed

## II. Recent Highlights

### A. America Receives its Return on Investment

Through June 30, 2017, state DWSRFs signed approximately \$35.4 billion into nearly 13,800 loans to water systems to fund community water infrastructure needs. States set aside \$3.0 billion in federal funds for their drinking water programs and non-infrastructure support to communities during this period.

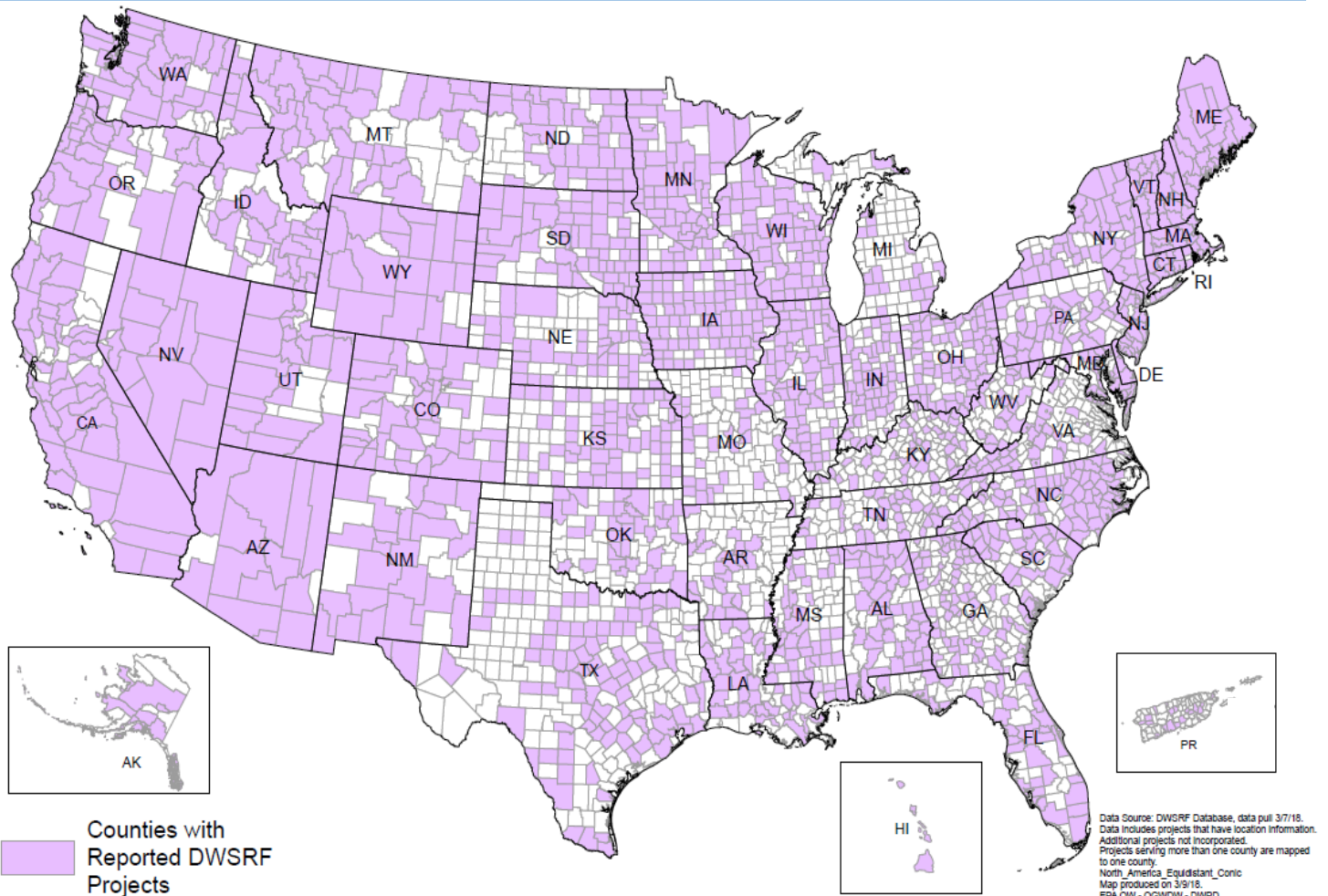
Just last year – in state fiscal year 2017 – the DWSRF loan program touched the lives of nearly 78 million Americans, while still providing significant support to smaller communities; water systems serving

10,000 people or fewer accounted for 71 percent of the loans signed by state programs in 2017.

Exhibit 1 shows the significant reach of the DWSRF program across the country. As reported, state DWSRFs signed loans to communities within counties shaded in purple since 2010 (the year that states began providing project-level data to the EPA).

The American taxpayer receives a significant return on investment with federal capitalization grants to the DWSRF. For each \$1 drawn from the U.S. Treasury, \$1.87 of infrastructure assistance has been disbursed to communities through the DWSRF.

**Exhibit 1: Map of Counties with DWSRF Projects Reported Since March 2010**





## 2014

- Congress initiates American Iron & Steel provision for DWSRF projects
- Principal repayments and interest earnings reach \$10 billion

## 2015

- EPA conducts 6<sup>th</sup> DW Infrastructure Needs Survey
- Cumulative loans signed hits \$30 billion

## 2016

- WIIN Act adds set-aside flexibilities and provides additional funding to Flint, MI

## 2017

- Program hits lowest federal ULO in history: \$397 million
- Nearly 10,000 projects completed

This return on investment will continue to increase as states make more loans, which are later paid back into the fund with interest. The return also increases as states leverage additional funds through the bond market and other sources of funding.

Exhibit 2 shows the relationship between federal capitalization grants and loan signings by state programs. Cumulatively through 2017, states took the \$19 billion in federal funds and, combining those funds with other sources of fund as noted below, signed over \$35 billion in loans.

### B. ULO Action Plan Stimulates Infrastructure Investment

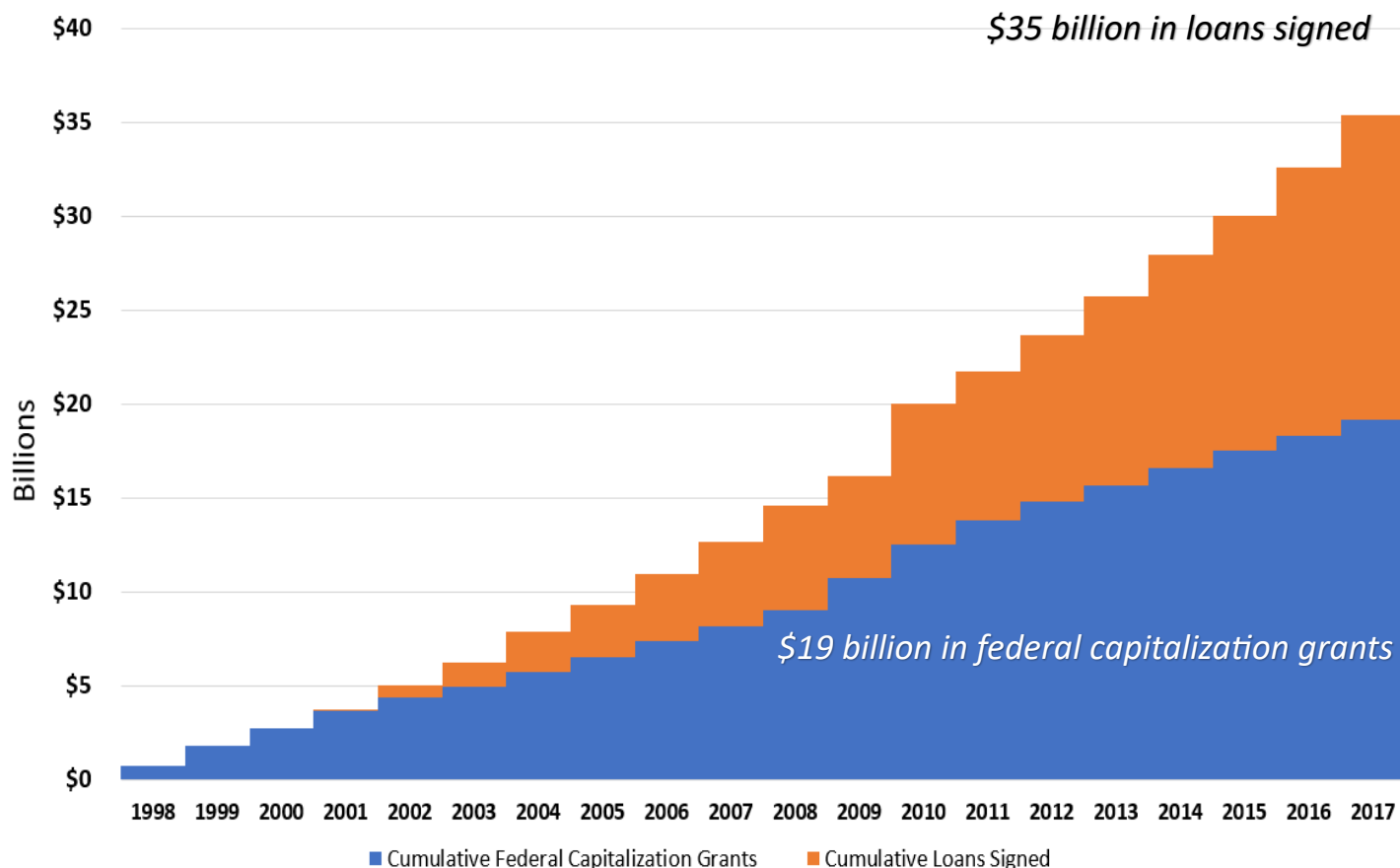
The EPA and state DWSRF managers share the important fiduciary responsibility of overseeing efficient use of federal funds. In 2014, the EPA and states implemented an action plan focused on

reduction of federal unliquidated obligations (ULOs) to accelerate infrastructure investment. EPA provided specific drawdown targets for federal funds and best practices to stimulate the flow of funds to high-priority public health needs.

To complement the ULO action plan, the EPA developed an eligibility handbook to provide a one-stop-shop for states to make eligibility determinations and to take full advantage of the flexibilities inherent in the DWSRF program.

The state DWSRF managers embraced the opportunity to further strengthen the DWSRF program through implementation of the action plan. A number of states incorporated cash flow models and enhanced outreach to borrowers as key parts of their programs. As a result, the DWSRF assistance provided (execution of loans agreements) and disbursements (reimbursements to communities for

**Exhibit 2: Cumulative DWSRF Federal Capitalization and Loans Signed**



# Since 2010, the DWSRF signed loans to approximately 5,250 distinct public water systems.

incurred costs) significantly increased in 2016 and 2017 (see Exhibits 3 and 4). Disbursements include federal dollars, state match, principal repayments, interest earnings and funds from leveraging.

In fewer than three years, the program's federal ULOs decreased nearly 50 percent, from \$2.3 billion in October 2013 to \$1.2 billion in October 2016. Since then, the program has continued to drive down federal ULOs. In August 2017, the DWSRF hit the lowest ULO in program history at about \$400 million -- less than one-half of an average year's Congressional appropriation, and approximately 2% of the total funding appropriated by Congress over the history of the program. Delivering on the program's promise, state programs continue to implement best practices to maintain low ULOs into the future.

### C. DWSRF Meets Evolving Infrastructure Needs

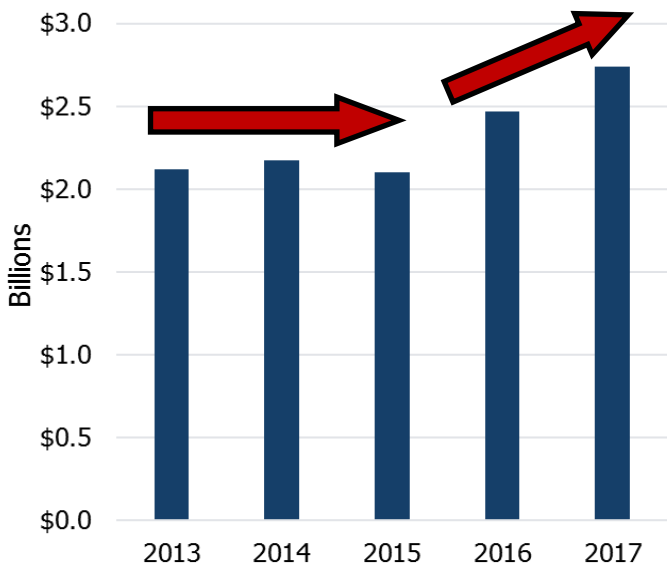
During the program's first twelve years, more infrastructure loan funds went to treatment projects than to transmission and distribution projects. In recent years, communities have increasingly looked to the DWSRF for funding to rehabilitate and replace their distribution systems. As a result of this shift, and as many of these underground assets reach or surpass their intended lifespans, transmission and distribution projects have been the most popular project

category in six of the program's past eight years. The 2015 Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) found that transmission and distribution represents 66 percent of the nation's infrastructure need over the next twenty years. The DWSRF program has demonstrated that it is well-suited to assist communities with this need.

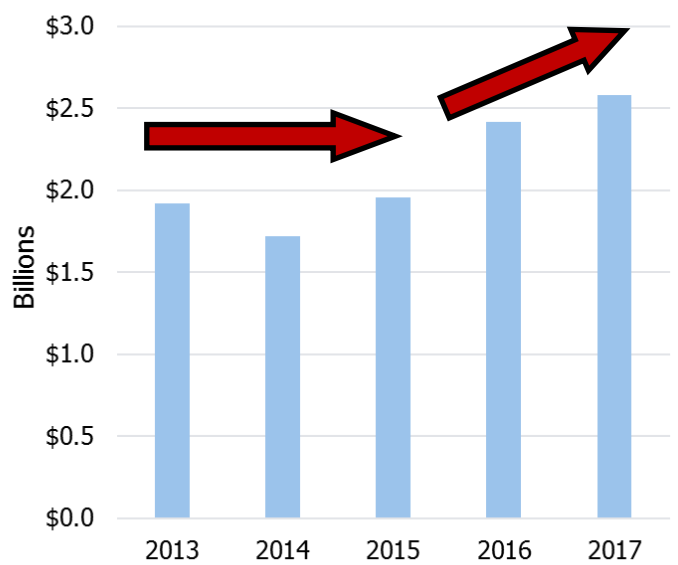
As the DWSRF program enters its third decade, there are tremendous opportunities across the nation for drinking water infrastructure investment and renewal. The EPA's 2015 DWINSA identified \$472 billion in drinking water infrastructure investments needed through 2034, including hundreds of thousands of miles of pipes and thousands of treatment plants, storage tanks and other key assets. The assessment, conducted by the EPA in partnership with states and water systems, shows that improvements are primarily needed in:

- **Distribution and transmission:** \$312.6 billion to replace or refurbish aging or deteriorating pipelines
- **Treatment:** \$83 billion to construct, expand or rehabilitate infrastructure to reduce the presence of contaminants
- **Storage:** \$47.6 billion to construct, rehabilitate or cover water storage reservoirs
- **Source:** \$21.8 billion to construct or rehabilitate intake structures, wells and spring collectors

**Exhibit 3: Assistance Provided (Loans Signed)**



**Exhibit 4: Disbursements to Communities**



# DWSRF Project Highlight: Williamsburg, PA

The water utility in the Borough of Williamsburg, Pennsylvania has served its residents and parts of neighboring Woodbury and Catherine Townships for more than a century. For most of that time, water was supplied by two reservoirs located on Tussey Mountain. In the late 1960s, two ground water wells were constructed to supplement the reservoirs. In the 1980s, the reservoirs were abandoned due to Giardia contamination and the poor condition of the transmission lines. Even after the abandonment of the reservoirs, many of the existing mains were undersized and in poor condition, resulting in pressure, flow and leak problems in some areas.

After undertaking a comprehensive evaluation of its drinking water system, the Borough applied to PENNVEST for DWSRF infrastructure financing. The Borough received a \$4.2 million DWSRF loan in May 1997 — the first DWSRF loan in the nation. The project included the installation of a booster pumping station, a 210,000-gallon water storage tank, eight miles of water mains and the replacement of every water meter in the system. The project was completed in the spring of 1998. The community recently finished repayment of their DWSRF loan.



### III. Future DWSRF Opportunities



#### A. The DWSRF: A SDWA Compliance Tool

The DWSRF has been instrumental in helping the nation’s community water systems to maintain compliance with health-based standards under the Safe Drinking Water Act. DWSRF-funded investments in drinking water infrastructure and capacity development and partnership formation assistance through state set-asides have been critical to ensure that water systems can achieve and maintain compliance.

State DWSRF managers, partnering with their state Public Water System Supervision program colleagues, utilize the program’s extraordinary flexibility to tailor assistance through the loan and set-aside portions of the fund to address a broad array of local needs. States are also able to use the DWSRF to assist water systems in establishing local and regional partnerships to support enhanced financial, structural, operational or other improvements and efficiencies in the reliable delivery of safe drinking water to their customers. Water system partnerships may be supported through the set-asides, the infrastructure fund or both.

#### B. Using Data to Inform and Enhance Outreach

State DWSRF managers can make strategic use of available data to target outreach and build relationships with potential borrowers, the design and construction community, and other partners. Building these relationships is vital to the DWSRF’s success in protecting public health.

Using past loan and disbursement data, many state managers have successfully built financial modeling tools to predict the revolving fund’s cash availability over time. These cash flow analysis tools help state managers effectively manage the “supply side” of drinking water infrastructure funding sources -- that is, plan the number and size of assistance agreements based on the amount of money that is likely to be available to lend for drinking water infrastructure construction. State DWSRF managers’ analyses of the “demand” side of their programs will soon have access to improvements that the EPA is making to the interconnections between several drinking water-related data systems:

- the DWSRF National Information Management System (DWNIMS),
- the DWSRF Project and Benefits Reporting System (PBR), and
- the Safe Drinking Water Information System (SDWIS).

Together, these systems will provide data to assist states and the EPA in efficiently assessing SDWA compliance and public health protections achieved through infrastructure funding provided to communities by the DWSRF program. Access to accurate, dynamic drinking water system data will further assist state DWSRF programs in conducting effective outreach to community water systems to ensure that demand for funding aligns with the needs for drinking water infrastructure investment. The new database interconnections will also reduce reporting burden on state DWSRF program managers and staff.

### C. Leveraging Non-Federal Funds

Increasing the amount of non-federal dollars

leveraged through the DWSRF is important to meeting the national need to repair and modernize aging and outdated water infrastructure. There are two major pathways available to states to increase the funds they have available to lend through the DWSRF. The first involves selling tax-exempt bonds. This has been practiced throughout the program's history, and 22 states currently utilize this approach. The second, and more recent opportunity involves the EPA's Water Infrastructure Finance and Innovation Act (WIFIA) program. Through WIFIA, states can borrow money to help finance additional projects.

A number of state DWSRFs have also jointly financed infrastructure projects with the WIFIA program. This approach allows states to expand their reach on both the demand and supply sides of their programs and deepen customer and partner relationships. Exploration of DWSRF and WIFIA joint ventures may also lead to opportunities and innovations in engaging non-federal funding sources from the public and private spheres to help amplify and accelerate the nation's investment in needed drinking water infrastructure.

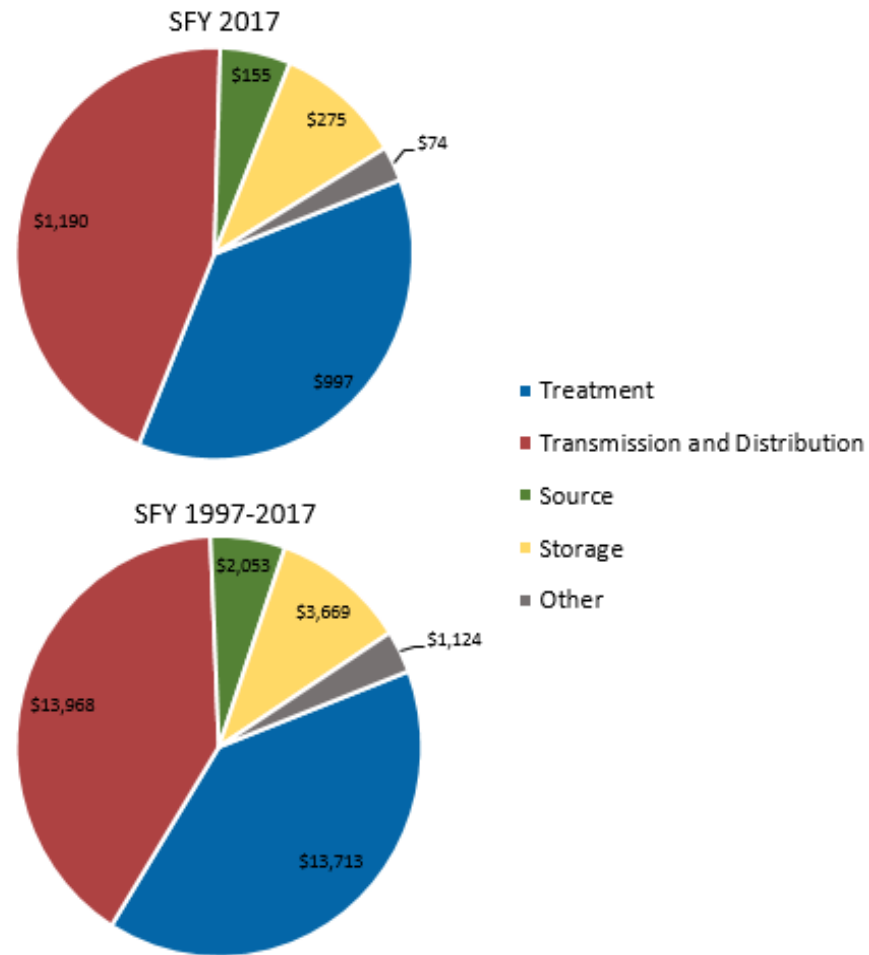


# IV. Infrastructure Fund Activity

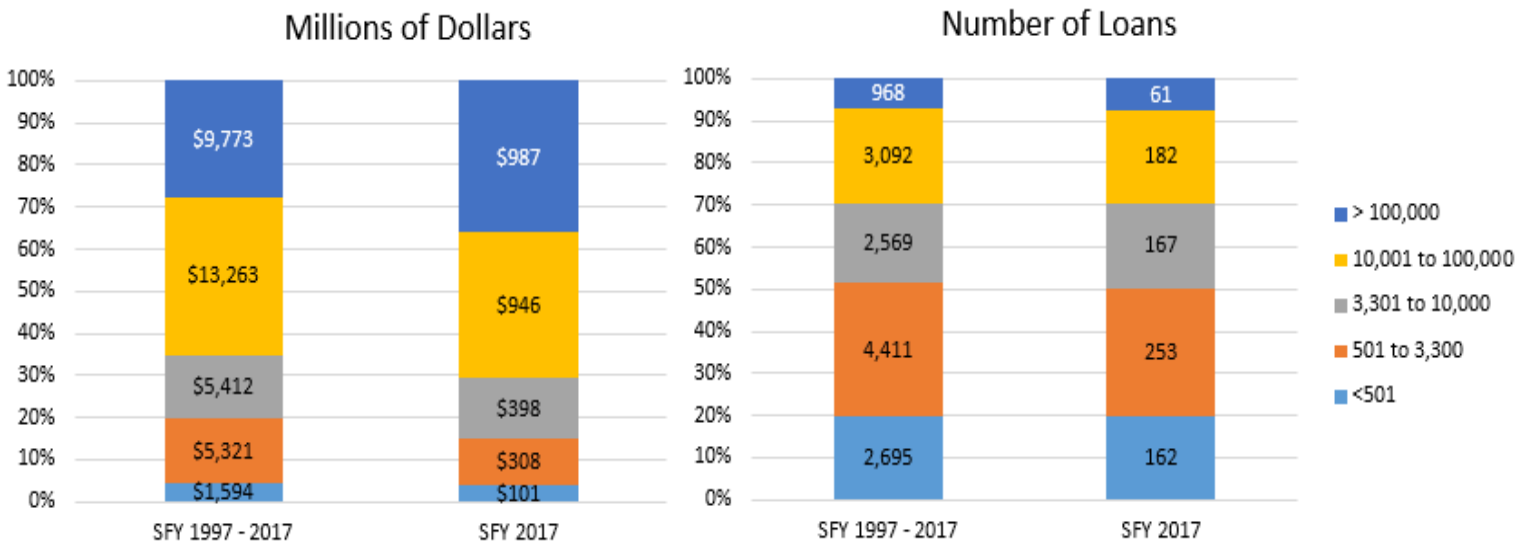
In state fiscal year (SFY) 2017, the DWSRF provided \$2.7 billion in assistance and entered into 825 loans. Most of the funding went to transmission/distribution and treatment projects (Exhibit 5). Communities with populations of 10,000 or fewer accounted for 29 percent of all assistance provided. Since 1997, the DWSRF has provided over \$35 billion in assistance, and 71 percent of the agreements and 35 percent of this assistance has been directed to communities with populations of 10,000 or fewer.

In SFY 2017, the DWSRF maintained a strong focus on communities serving 10,000 or fewer people. In terms of dollars, 29 percent of the SFY 2017 funds administered were provided to these smaller systems. States used principal forgiveness as a key tool; 70 percent of systems serving populations of 500 or less received principal forgiveness, with 43 percent of those systems receiving full principal forgiveness. As the charts show, the percentage of SFY 2017 funds directed to small systems is somewhat less than it is for the cumulative data, while the number of loans is similar (Exhibit 6).

**Exhibit 5: Assistance by Project Type (Millions of Dollars)**



**Exhibit 6: Assistance by Community Size**



# DWSRF Project Highlight: Pawtucket, RI

The City of Pawtucket, Rhode Island, used the DWSRF to significantly rehabilitate their aging water system serving about 100,000 people. With a surface water treatment plant built in 1938 and about 200 miles of severely deteriorated distribution mains, Pawtucket was illustrative of the challenges facing many water systems. After years of increasing evidence of problems, a 1987 sanitary survey highlighted the severe water system deficiencies in the City. In 1992, Pawtucket had a violation of the Total Coliform Rule (TCR), leading to a 2-month boil water order. Pawtucket decided to address these serious and long-standing issues, recognizing how essential a safe and reliable water supply is to a city's prospects for economic growth.

Pawtucket's water system rehabilitation was

extensive and included a new state-of-the-art surface water treatment plant and over 200 miles of cleaning and cement lining the aging cast and ductile iron distribution network. The City worked with the Rhode Island Department of Health to secure over \$70 million in DWSRF funding, the largest loan in state history. Pawtucket's new surface water treatment plant went online in 2007.

The City's drinking water is now of much improved quality. Several microbreweries have located in Pawtucket, and the water system's electric costs have significantly decreased due to reduced friction loss from the smoother interior walls of the water mains after rehabilitation. The investment will help the City to provide safe drinking water to residents for generations to come.



## V. Set-Asides Activity

States may reserve a portion of their annual capitalization grants to fund non-infrastructure activities supporting safe drinking water. Set-asides expand the impact of the DWSRF by helping to ensure that systems have the necessary technical, managerial and financial capacity to get the intended public health protection from their drinking water infrastructure investments. Each of the four DWSRF set-aside categories has its own connection to public health. Upon receiving capitalization grants, states may reserve funds under each of the four categories, at their discretion, up to the maximum allowable limit. Below is an overview of the set-asides, as well as set-aside resources.

### A. Overview of DWSRF Set-Asides

#### **Administrative and Technical Assistance (approx. 4% Set-Aside)**

States may set aside the greatest amount of the following options: 4 percent of the capitalization grant, \$400,000, or 0.2 percent of the revolving loan fund. This set-aside is used to administer state DWSRF programs and to provide technical assistance to systems of any size. For example, states may use these funds to hire staff or to assist systems with project plans or loan applications.

#### **Small Systems Technical Assistance (2% Set-Aside)**

States may reserve up to 2 percent of their annual capitalization grant to fund programs that provide assistance to drinking water systems serving 10,000 people or fewer. Small systems often face greater challenges than larger systems, and they frequently have difficulty obtaining funding. This set-aside helps them to build their capacity and align their planning with their needs.

#### **State Program Management (10% Set-Aside)**

This set-aside may be used to fund Public Water System Supervision (PWSS) activities overseeing all drinking water programs in individual states. Funding from this set-aside can be used for capacity development, operator certification, source water protection programs and other activities.

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

States can use up to 15 percent of their capitalization grants (but no more than 10 percent for any single activity) to provide loans for the purchase of land to support source water protection, to implement voluntary water quality protection

activities, to carry out wellhead protection, or to assist PWSSs with their capacity development.

### B. Set-Aside Resources

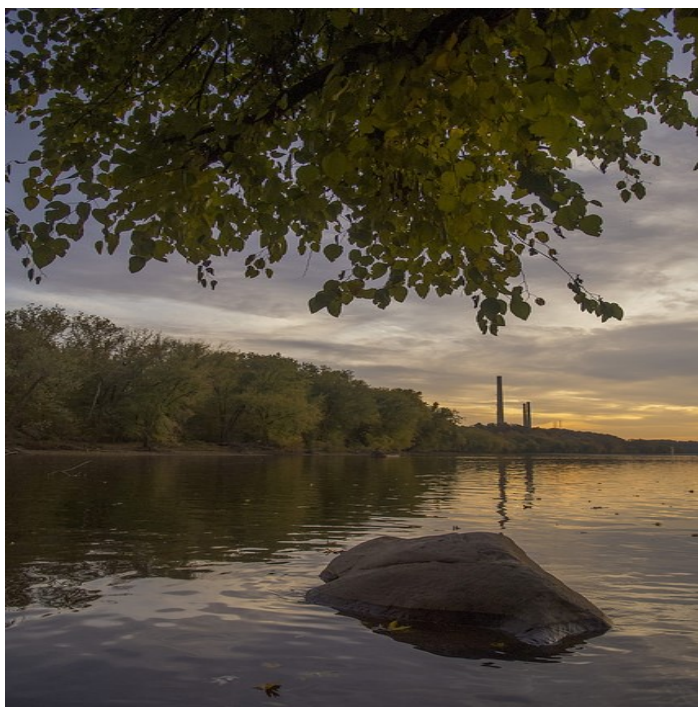
States use a range of tools and resources through the set-asides to complement and support infrastructure projects and build capacity at water systems. The EPA is committed to continuing to work with the states to identify innovative approaches that maximize the effectiveness of investments to protect the health of the American people.

Examples of set-aside uses are found in the *Drinking Water State Revolving Fund Eligibility Handbook* (June 2017) and the *Analysis of the Use of Drinking Water State Revolving Fund Set-Asides: Building the Capacity of Drinking Water Systems* (October 2017). Set-asides help ensure that systems have the necessary technical, managerial and financial capacity to achieve public health protection, which in turn allow more water systems to successfully apply for and receive DWSRF loans for infrastructure projects.

### C. Recent Usage

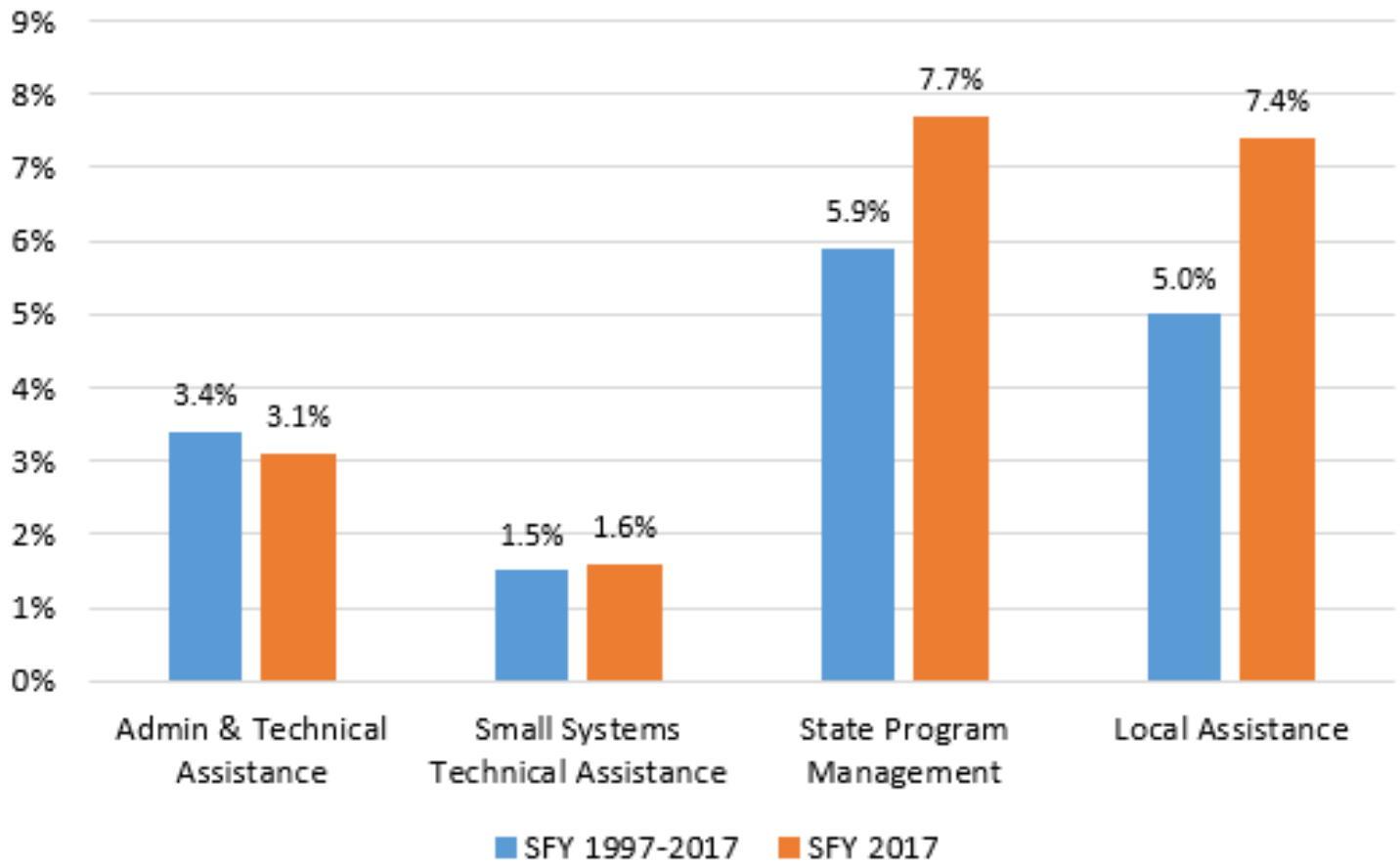
In 2017, states took more of the state program management (10 percent) set-aside and local assistance (15 percent) set-aside than they have historically (Exhibit 7). This indicates a greater reliance on the DWSRF to fund these activities.

Exhibit 8 shows how states used each set-aside account in 2017 and cumulatively over the past twenty years.





### Exhibit 7: Set-Asides Taken as a Percentage of Capitalization Grants



### Exhibit 8: Set-Aside Expenditures (Millions of Dollars)

Set-Aside Category	Sub-Category	SFY 2017	Cumulative (SFY 1997-2017)
Administrative	Administrative Assistance	31.73	615.99
	Technical Assistance	0.00	3.23
Small Systems	Technical Assistance	15.38	263.94
State Program Management	PWSS Administration	68.12	752.87
	SWP Technical Assistance	2.73	96.30
	Capacity Development	5.87	160.61
	Operator Certification Programs	1.78	40.98
Local Assistance	Loans for SWP Land Acquisition	0.00	8.89
	Loans for Incentive-Based SWP Measures	0.00	7.75
	SWP Area Delineation/ Assessment	2.77	121.59
	Wellhead Protection	19.84	295.18
	Technical or Financial Assistance	45.01	408.33
<b>TOTAL</b>		<b>193.23</b>	<b>2,775.66</b>

# DWSRF Project Highlight: Santa Fe, NM



Santa Fe experienced a severe drought in the 1990s and experienced aquifer depletion for several years. At the time, Santa Fe had three water sources — two well systems and one surface water source, the Santa Fe Reservoirs, which are solely dependent on watershed snow melt — but the community required a more sustainable option to meet their needs. This led to the creation of a fourth source, the Buckman Direct Diversion (BDD) Project. The BDD now provides a safe, reliable fourth source of drinking water for the City of Santa Fe and Santa Fe County by improving the regional water supply during drought conditions. BDD is recognized as the most state of the art, advanced water treatment facility in the state of New Mexico.

The BDD serves almost 100,000 people by drawing water from the Rio Grande. This facility is the “cornerstone” of the Santa Fe water supply, as it provides most of the water for the City of Santa Fe and surrounding Santa Fe County. Since the creation of the BDD, the aquifers have recovered and two of the wells have even become artesian. The addition of BDD’s capability to access the San Juan Chama

Project water rights gives Santa Fe the flexibility to mix and add this water with its existing sources. The BDD has received numerous awards since 2011, including 2011 LEED Certification and the 2017 New Mexico Water and Wastewater Association President’s Award for Most Improved Facility.

Raw water from the Rio Grande is pumped 11 miles uphill to the BDD water treatment plant. The raw water undergoes a rigorous treatment process including both conventional and advanced treatment processes: pre-ozone treatment, coagulation, flocculation and sedimentation, pressure membranes for enhanced filtration, another ozone treatment for disinfection, and granular activated carbon filters to remove taste and odor.

The Rio Grande varies greatly in quality and quantity throughout the year. Summer thunderstorms increase runoff, making the river water quality unpredictable due to higher turbidity levels with increased volatile organic compounds and total suspended solids.

There are several gauge stations in the Los Alamos canyons that monitor water flow and alert BDD operators of any flow from these canyons into the Rio Grande where concentrations of contaminants may be brought down. The BDD was designed to quickly turn off the diversion and operate the water treatment plant from onsite storage alone if necessary. There are 8 million gallons (MG) of raw water storage onsite, as well as 4MG of finished water storage, with plans to add another 4MG of finished water storage in the future.

BDD utilizes two solar power generation facilities, which supply a substantial amount of the energy necessary to pump and treat the water. The BDD is operated 24 hours a day. To maximize energy savings, the raw water is pumped to the water storage basins at night, when energy costs are about one-third the price.

The DWSRF provided a \$21 million loan for this

project. The remainder of the project was self-financed by both the city of Santa Fe and Santa Fe County, with funds raised through an annual 6 percent water rate increase over a five-year period.

There have been many economic benefits of the BDD Project. During its two-year construction, several hundred full-time construction workers were employed. Currently, 35 full-time employees work at BDD. In order to attract and retain skilled operators and maintenance staff, these positions pay approximately 10-percent higher than other similar jobs in the area. One of Santa Fe's long-term economic benefits is commercial growth. Previously, businesses that were interested in moving to the area or opening another location in Santa Fe were concerned with water rights allocation and availability. Because of the BDD, Santa Fe now has an extremely reliable water source that can accommodate residents and future business.



## VI. 2017 Financial Statement

The fundamental purpose of the DWSRF is to provide low-cost capital to finance sustainable, long-term public health protection. The ability to assist projects that protect public health is dependent on three pillars of the DWSRF:

- continued federal capitalization,
- innovative, intelligent and effective state management, and
- maintaining the growth and revolving nature of the DWSRF.

Since the DWSRF's inception, Congress has appropriated about \$19 billion into the fund. These funds have gone both to the revolving loan fund and the state set-asides. Together, the 51 state DWSRF

programs have effectively leveraged these funds to provide nearly \$35 billion in loans to the nation's water systems and \$3 billion to states for set-aside programs to support capacity development, source water protection, and operator training and certification. For the loan program, this translates into \$1.87 in disbursements for every \$1 drawn from the Treasury.

From the 2010 appropriation onward, Congress mandated that a certain portion of the federal capitalization grant be provided to borrowers as additional subsidy. This change allows states to further aid communities most in need and incentivize particular types of projects.

### Exhibit 9: Statement of Fund Activity (Millions of Dollars)

Annual Fund Activity	FY2016	FY2017
Federal Capitalization Grants	834.9	823.1
State Matching Funds <sup>1</sup>	159.6	255.4
Annual DWSRF Funds Newly Available for Assistance	2,106.4	2,785.1
Project Commitments (Executed Loan Agreements)	2,585.9	2,738.9
New Set-Aside Funds Available for Assistance	170.8	163.6
Project Disbursements from the Fund	2,413.8	2,582.4
Cash Draws from Federal Capitalization Grants (Fund) <sup>2</sup>	1,032.5	835.7
Cash Draws from Set-Asides <sup>2</sup>	199.4	193.4
<b>Cumulative Fund Activity</b>		
Federal Capitalization Grants	18,352.4	19,175.4
State Matching Funds	3,453.5	3,708.9
DWSRF Funds Available for Assistance	34,180.2	36,965.2
Project Commitments (Executed Loan Agreements)	32,643.1	35,382.0
Set-Aside Funds Available for Assistance	2,874.0	3,037.5
Project Disbursements from the Fund	28,263.4	30,845.8
Cash Draws for Fund	15,039.2	15,874.9
Cash Draws for Set-Asides	2,581.1	2,774.6
Loan Principal Forgiven	208.3	306.3

<sup>1</sup> May not equal 20% of full federal capitalization grants each year due to timing of match deposit.

<sup>2</sup> This includes funds drawn from previous grants.

The Single Audit Act designates the threshold for auditing federal programs. Most DWSRF programs receive a program-specific audit in addition to auditing required under the Single Audit Act. Because the 51 DWSRF programs are independent state-level entities, DWSRF program financial reports are prepared for individual state programs. Using the EPA's National Information Management System, national aggregate financial statements, best viewed as non-audited cash flow-based reports, are shown on the following pages.

### A. Statement of Fund Activity

As shown in Exhibit 9, DWSRF programs executed approximately \$2.7 billion worth of loans in SFY 2017, a significant increase from 2016. For SFY 2017, assistance provided as a percent of funds available ("pace of funds provided") was 96 percent, indicating that states were highly effective in

directing available funding to drinking water infrastructure loans and other financial agreements. Robust fund utilization demonstrates a high demand for DWSRF funding. A portion of the disbursed funds are used to provide principal forgiveness to disadvantaged communities or to help finance other specific state priorities; in SFY 2017, more than \$306 million was provided in the form of principal forgiveness.

While the size of the federal capitalization grant decreased in 2017, the total amount of funds available for assistance increased. The amount of infrastructure assistance includes new investments, net leveraged bonds, and loan principal and interest repayments. The dollar amount of project commitments also increased, reflecting the overall increase in funds available.

### Exhibit 10: Statement of Revenues, Expenses, and Earnings (Millions of Dollars)

	FY2016	FY2017
<b>Operating Revenues</b>		
Interest on Fund Investments	61.7	68.8
Interest on DWSRF Loans	294.2	295.5
<i>Total Operating Revenues</i>	355.9	364.3
<b>Operating Expenses</b>		
Bond Interest Expense	141.9	154.1
DWSRF Funds Used for Refunding <sup>3</sup>	61.2	1.5
Amortized Bond Issuance Expense	7.1	5.0
<i>Total Operating Expenses</i>	210.2	160.6
<b>Non-Operating Revenues and Expenses</b>		
Cash Draws from Federal Capitalization Grants <sup>2</sup>	1,032.5	835.7
Loan Principal Forgiven	(208.3)	(306.3)
State Contributions <sup>4</sup>	122.2	180.7
Transfers from (to) CWSRF	12.9	1.9
<i>Total Non-Operating Revenues (Expenses)</i>	959.3	712.0
<b>Increase (Decrease) in Net Assets</b>	1,105.0	915.6
<b>Net Assets</b>		
Beginning of Year	15,900.4	17,005.4
End of Year	17,005.4	17,921.0

<sup>2</sup> This includes funds drawn from previous grants.

<sup>3</sup> Refunding occurs when outstanding bonds are retired with newly-issued bonds.

<sup>4</sup> State contributions are not the entirety of state match, which also include state match bonds.

**Exhibit 11: Statement of Cash Flow (Millions of Dollars)**

<b>Operating Activities</b>	<b>FY2016</b>	<b>FY2017</b>
Cash Draws from Federal Capitalization Grants <sup>2</sup>	1,032.5	835.7
State Contributions <sup>4</sup>	122.2	180.7
Loan Disbursements to be Repaid	(2,205.6)	(2,276.1)
Loan Principal Forgiven	(208.3)	(306.3)
Loan Principal Repayments	1,185.0	1,221.0
Interest Received on Loans	294.2	295.5
<i>Total Cash Flows from Operating Activities</i>	220.1	(49.5)
<b>Non-Capital Financing Activities</b>		
Gross Leveraged Bond Proceeds	322.6	678.5
Bond Issuance Expense	(3.8)	(4.6)
State Match Bond Proceeds	37.4	74.8
Cash Received from Transfers with CWSRF	12.9	1.9
Interest Paid on Leveraged and State Match Bonds	(141.9)	(154.1)
DWSRF Funds Used for Refunding <sup>3</sup>	(61.2)	(1.5)
Principal Repayment of Leveraged Bonds	(419.8)	(337.0)
Principal Repayment of State Match Bonds	(45.3)	(75.0)
<i>Total Cash Flows from Non-Capital Financing Activities</i>	(299.2)	183.0
<b>Investing Activities</b>		
Interest Received on Fund Investments	61.7	68.8
Deposits to Debt Service Reserve for Leveraged Bonds	51.7	15.5
<i>Total Cash Flows from Investing Activities</i>	113.4	84.3
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	34.4	217.9
<b>Cash and Cash Equivalents</b>		
Beginning of Year	4,708.6	4,742.9
End of Year	4,742.9	4,960.9

<sup>2</sup> This includes funds drawn from previous grants.

<sup>3</sup> Refunding occurs when outstanding bonds are retired with newly-issued bonds.

<sup>4</sup> State contributions are not the entirety of state match, which also include state match bonds.

## B. Statement of Revenues, Expenses, and Earnings

This statement is a useful tool to view the sources of funds and the expenses of the DWSRF program nationally, and how those impact net assets. For 2017, interest earnings exceeded expenses, adding to the growth of the program. From 2016 to 2017, operating expenses decreased by \$49.6 million, with a decrease in DWSRF funds used for refunding (Exhibit 10). DWSRF net assets increased by \$915.7 million, reflecting the steady increase in assets since the program's inception.

## C. Statement of Cash Flow

This statement is a beneficial tool to view the impact of DWSRF management activities on cash on hand. DWSRF programs require a reserve to maintain their programs.

As indicated in Exhibit 11, DWSRF loan disbursements to be repaid increased by \$70.5 million from 2016 to 2017, reflecting the overall increase in project construction. Loan principal repayments and state contributions increased, while loan interest remained nearly constant since the

previous state fiscal year. Given the increase in loan disbursements to be repaid, it is expected that principal repayments will increase during upcoming years.

State match bond proceeds increased by \$37.4 million and leveraged bond proceeds added \$355.9 million to program cash flows. This reflects an increase in bond issuance in 2017. In SFY 2017, states paid \$566.1 million in principal and interest on leveraged bonds and state match bonds, demonstrating a decrease of \$40.9 million from the previous year. Bond issuance is one method by which states may balance their loan demand with the need to maintain the long-term sustainability of their revolving funds.

## D. Statement of Net Assets

Total assets increased by \$1.3 billion while total liabilities increased by \$341.3 million; therefore, net assets increased by \$915.6 million, or 5.4 percent of total 2016 net assets. This reflects the overall health of the DWSRF program, which has shown a steady net asset growth over the past 10 years (Exhibit 12).

### Exhibit 12: Statement of Net Assets (Millions of Dollars)

<b>Assets</b>	<b>FY2016</b>	<b>FY2017</b>
Cash and Cash Equivalents	4,742.9	4,960.9
Debt Service Reserve - Leveraged Bonds	751.9	736.3
Loans Outstanding	15,985.0	17,040.0
Unamortized Bond Issuance Expenses <sup>4</sup>	69.3	68.8
<i>Total Assets</i>	<i>21,549.1</i>	<i>22,806.0</i>
<b>Liabilities</b>		
Match Bonds Outstanding	235.1	234.9
Leveraged Bonds Outstanding	4,308.6	4,650.0
<i>Total Liabilities</i>	<i>4,543.7</i>	<i>4,885.0</i>
<b>Net Assets</b>		
Federal Contributions	15,039.2	15,874.9
State Contributions	2,590.9	2,771.6
Transfers - Other SRF Funds	524.8	526.8
Other Net Assets <sup>5</sup>	(1,149.6)	(1,252.3)
<i>Total Net Assets</i>	<i>17,005.4</i>	<i>17,921.0</i>
<b>Total Liabilities &amp; Net Assets</b>	<b>21,549.1</b>	<b>22,806.0</b>

<sup>5</sup> Unamortized bond issuance expenses are costs that have been incurred but have not been fully recognized (amortized). These costs will be recognized (amortized) over time over the remaining life of the bonds outstanding, similar to a pre-paid expense.

<sup>6</sup> Examples include interest, loan repayments, principal forgiveness.

# VII. Success Stories

## Region 1



**Ashland, ME** — Ashland had a storage tank coated with lead-based paint and a collapsing roof. With a median household income (MHI) under \$14,000 per year, Ashland qualified for disadvantaged assistance and used DWSRF and Maine Rural Development Council funding to make improvements.



**Mattapoissett River Valley Water District, MA** — The District struggled with iron and manganese contamination issues and received funding from the DWSRF 2 percent set-aside to plan a water treatment facility. This new facility allowed four towns to regain use of their existing sources and avoid having to develop a new source.



**Waterville Fire District, VT** — A DWSRF loan was used to build two reservoirs, replace water mains, and construct a building for housing equipment and meters. These system upgrades corrected issues with inadequate disinfection capacity, which had led to bacterial contamination of the water supply.

## Region 2



**New York** — The State of New York uses the state program management (10 percent) set-aside to conduct security inspections at drinking water systems to ensure that facilities and operations are not vulnerable to threats that could disrupt the delivery of safe drinking water to their customers.



**Rosemont Water Company, NJ** — The Rosemont Water Company was formed in the 1960s by community members in the village of Rosemont to address unsafe drinking water. In 2007, the system had unsafe arsenic levels, and the RWC worked with the NJ DWSRF program to install an arsenic removal system and provide safe drinking water to residents.



**Puerto Rico** — Puerto Rico used DWSRF set-aside funds to develop a Capacity Development Pilot Project aimed at small communities. This project, carried out in fifteen communities around the island, measured the effectiveness of the circuit riders approach to help small community systems achieve and maintain TMF capacity.



## Region 3



**Forest Park Mobile Home Park, DE** — Forest Park had several violations, including high nitrate levels. Collaboration between several agencies and use of the DWSRF 15 percent set-aside funding brought this small system into compliance and provided safe drinking water to Forest Park's 46 residents.



**Baltimore, MD** — In order to comply with the Long Term 2 Enhanced Surface Water Treatment Rule, the City of Baltimore replaced an existing open finished water reservoir with a new enclosed 35 MG reservoir. To improve runoff water quality and reduce runoff volume, the new reservoir was covered with a green roof.



**Eastern Wyoming Public Service District, WV** — Eleven failing and abandoned water systems were consolidated to form the Eastern Wyoming PSD, with a new water plant, three storage tanks and new water mains. This project used several funding sources, including the DWSRF, to bring safe, potable water to residents.

## Region 4



**Stuart, FL** — Stuart upgraded its water distribution system by replacing over 11 miles of pipes, as well as replacing approximately 2,500 meters throughout the city. Stuart also completed an emergency interconnect with a nearby water source, allowing the city to provide safe, reliable water to customers.



**Pascagoula, MS** — Saltwater intrusion and overall low water quality led Pascagoula to use DWSRF funding for construction of three reverse osmosis/ozone treatment plants to treat water from 12 wells. This project improved water quality and resolved customer complaints regarding the water's taste, odor and color.



**Dauphin Island Water and Sewer Authority, AL** — Organic matter contamination created hydrogen sulfide gas that corroded Dauphin Island's water storage tank. With ARRA funding, Dauphin Island constructed a new water storage tank, with a protective coating and ventilation for gases, and a treatment plant to remove contaminants.

## Region 5



**Dexter, MI** — The Village of Dexter used ARRA funding to replace over 4,000 feet of old cast iron water mains. This project qualified for Green Project Reserve funding due to water loss reduction and corresponding energy savings. The system previously had around 17 percent real water losses.



**Lanesboro, MN** — Struggling with iron, manganese, and radium contamination issues, Lanesboro received DWSRF funding to drill a new groundwater well and construct a new water treatment plant. Lanesboro returned to compliance in 2016 and has noticed significantly improved water quality.



**Wisconsin** — The Wisconsin DWSRF program provides loan principal forgiveness for replacement of privately-owned lead service lines (LSL). The municipality's population size determines the maximum funding level for LSL replacement. Funding is also available for the private portion of LSL replacement at K-12 schools and licensed daycare centers.

## Region 6



**Saint Bernard Parish Waterworks, LA** — A rare, deadly amoeba was found in St. Bernard's cast iron water mains. This project began in 2015 and involved replacing the cast iron waterlines with polyvinyl chloride (PVC) pipe, which will eliminate leaks and water main failures.



**Garber Municipal Authority, OK** — Garber MA, a city of 845 people, owned two wells that exceeded the health-based standards for nitrates and carbon tetrachloride. This city received DWSRF funding to install 11 miles of water mains, build a pump station and successfully consolidate with the nearby town of Enid. This project was completed in 2017.



**Franklin Sebastian Public Water Authority, AR** — Three separate communities were having contamination issues and had a limited drinking water supply. These communities used DWSRF funding to create the Franklin Sebastian PWA. This new regional entity purchases safe drinking water from Fort Smith and transports it to these communities.

## Region 7



**Ames, IA** — A 90-year old treatment plant was replaced by a 15 million gallon-per-day, Leadership in Energy and Environmental Design (LEED)-certified facility that meets the demand of 59,000 residents. This project was completed in 2017, and the \$76 million loan for this project was the largest loan in IA DWSRF history.



**Hutchinson, KS** — Several city wells were contaminated with volatile organic compounds (VOCs,) so the city air-stripped the VOCs and discharged the waste into a nearby stream. When the state required elimination of the discharge, Hutchinson utilized both the DWSRF and CWSRF to build a new water treatment plant and improve local water quality.



**Jackson, NE** — Jackson, a community of 230 people, needed to meet health-based standards for radium and gross alpha particles. To do this, they received DWSRF funding to install a new well in a different aquifer, build a new water treatment plant for iron removal and make needed improvements to the distribution system.

## Region 8



**Sterling, CO** — A new reverse osmosis water treatment plant was constructed to address uranium and total trihalomethane (TTHM) violations. This project, completed in 2013, enabled Sterling to comply with drinking water standards and provide safe drinking water to residents.



**South Wind Water District, MT** — After years of non-compliance, 200 residents purchased the system and formed the South Wind WD. The community has since implemented several improvements to the system, including a new well, well house, storage tank and water mains. Future projects will address leaking water mains.



**Afton, WY** — Afton and its electricity provider developed a micro-hydroelectric system (inline pipe turbine) designed to generate over six times the amount of energy used by Afton's water system. Excess electricity is sold, generating revenue for Afton. Also, the use of renewable energy reduces Afton's carbon emissions.

## Region 9



### **Eastern and Elsinore Municipal Water Districts, CA**

— Nitrate contamination and TMF capacity issues led a small, privately-owned system to consolidate with Eastern and Elsinore MWD. Thirty-two (32) connections were joined with Eastern MWD and 120 connections with Elsinore MWD.



**Mobile Home Park, NV** — A mobile home park with 30 customers was out of compliance with health-based requirements for arsenic and coliform. Collaboration among several agencies allowed this MHP to successfully consolidate with the county and receive safe drinking water. This project was completed in 2017.



**Lake Verde Water Company, AZ** — Lake Verde Water Company, serving 125 people, received DWSRF funding to construct a centralized arsenic treatment system and three 10,000-gallon storage tanks. This project, completed in 2017, brought the system into compliance with the arsenic rule.

## Region 10



**Palmer, AK** — Water mains throughout the city were corroded, causing water leakage and allowing debris to contaminate the drinking water. Palmer received DWSRF funding to replace 25,000 feet of the corroded steel water mains.



**Baker City, OR** — A 2013 *Cryptosporidium* outbreak sickened hundreds of residents and forced Baker City to quickly find a solution. Ultraviolet (UV) treatment was fully installed in 2015 as a low-cost, beneficial option for the city to reduce future potential outbreaks and provide safe drinking water to residents.



**Central Shoshone County Water District, ID** — The District's well was under the direct influence of surface water, putting it at risk for microbial contaminants. A membrane microfiltration water treatment plant was constructed to meet standards and provide safe drinking water to residents.

# State Agencies Managing the DWSRF

## EPA Region 1

Connecticut Department of Public Health  
Connecticut Office of the Treasurer  
Maine Department of Human Services  
Maine Municipal Bond Bank  
Massachusetts Clean Water Trust  
Massachusetts Department of Environmental Protection  
Massachusetts Executive Office of Administration and Finance  
New Hampshire Department of Environmental Services  
Rhode Island Infrastructure Bank  
Rhode Island Department of Health  
Vermont Facilities Engineering Division

## EPA Region 2

New Jersey Department of Environmental Protection  
New Jersey Environmental Infrastructure Trust  
New York State Department of Health  
New York State Environmental Facilities Corporation  
Puerto Rico Department of Health  
Puerto Rico Infrastructure Financing Authority

## EPA Region 3

Delaware Department of Health and Social Services  
Maryland Water Quality Financing Administration  
Maryland Water and Science Administration  
Maryland Department of the Environment  
Pennsylvania Infrastructure Investment Authority  
Pennsylvania Department of Environmental Protection  
Virginia Department of Health  
Virginia Resources Authority  
West Virginia Department of Health and Human Resources  
West Virginia Water Development Authority

## EPA Region 4

Alabama Department of Environmental Management  
Florida Department of Environmental Protection  
Georgia Environmental Finance Authority  
Georgia Department of Natural Resources  
Kentucky Infrastructure Authority  
Kentucky Department of Environmental Protection  
Mississippi State Department of Health  
North Carolina Department of Environmental Quality  
South Carolina Department of Health and Environmental Control  
South Carolina Budget and Control Board  
Tennessee Department of Environment and Conservation

## EPA Region 5

Illinois Environmental Protection Agency  
Indiana Finance Authority  
Michigan Department of Environmental Quality  
Michigan Municipal Finance Authority  
Minnesota Public Facilities Authority  
Minnesota Department of Health  
Ohio Environmental Protection Agency  
Ohio Water Development Authority  
Wisconsin Department of Natural Resources  
Wisconsin Department of Administration





### **EPA Region 6**

Arkansas Natural Resources Commission  
Arkansas Department of Health  
Arkansas Development Finance Authority  
Louisiana Department of Health  
New Mexico Finance Authority  
New Mexico Environment Department  
Oklahoma Department of Environmental Quality  
Oklahoma Water Resources Board  
Texas Water Development Board

### **EPA Region 7**

Iowa Department of Natural Resources  
Iowa Finance Authority  
Kansas Department of Health and Environment  
Kansas Department of Administration  
Kansas Development Finance Authority  
Missouri Department of Natural Resources  
Missouri Environmental Improvement and Energy Resources Authority

### **EPA Region 8**

Colorado Water Resources and Power Development Authority  
Colorado Water Quality Control Division  
Colorado Department of Local Affairs  
Montana Department of Environmental Quality  
Montana Department of Natural Resources and Conservation  
North Dakota Department of Health  
North Dakota Public Finance Authority  
South Dakota Department of Environment and Natural Resources  
Utah Department of Environmental Quality  
Wyoming Office of State Lands and Investments  
Wyoming Department of Environmental Quality  
Wyoming Water Development Office

### **EPA Region 9**

Arizona Water Infrastructure Finance Authority  
California State Water Resources Control Board  
Hawaii Department of Health  
Nevada Division of Environmental Protection  
Nevada Office of Financial Assistance

### **EPA Region 10**

Alaska Department of Environmental Conservation  
Idaho Department of Environmental Quality  
Oregon Health Authority  
Oregon Infrastructure Finance Authority, Business Oregon  
Oregon Department of Environmental Quality  
Washington State Department of Health  
Washington Department of Commerce



# DWSRF At-a-Glance

## Assistance Provided for Projects (Millions of Dollars)

	2017	1997-2017
<b>Total, by Project Type</b>	2,738.9	35,384.7
<b>Planning and Design Only</b>	28.3	367.6
<b>Construction</b>		
Treatment	997.3	13,712.6
Transmission & Distribution	1,190.4	13,967.7
Source	154.6	2,053.3
Storage	275.0	3,669.3
<b>Purchase of Systems</b>	0.7	293.6
<b>Restructuring</b>	17.0	115.7
<b>Land Acquisitions</b>	1.9	81.0
<b>Other</b>	73.7	1,123.9
<b>Total, by Population Served</b>		
Less than 501	100.5	1,594.4
501 to 3,300	307.7	5,321.4
3,301 to 10,000	397.6	5,411.8
10,001 to 100,000	946.1	13,263.1
100,001 and Above	987.0	9,772.6
<b># of Loans, by Population Served</b>		
Less than 501	162	2,695
501 to 3,300	253	4,411
3,301 to 10,000	167	2,569
10,001 to 100,000	182	3,092
100,001 and Above	61	968

## Funds Available for Projects (Millions of Dollars)

	2017	1997-2017
<b>Total Funds</b>	2,785.1	36,965.2
<b>Federal Capitalization Grants</b>	823.1	19,175.4
<b>State Match</b>	255.4	3,708.4
<b>Net Leveraged Bonds</b>	848.9	7,908.1
<b>Net Loan Principal Repayments</b>	884.0	6,840.3
<b>Net Interest Earnings</b>	135.3	2,002.8
<b>Net Transfers with CWSRF</b>	1.9	367.3
<b>Less Set-Asides</b>	(163.6)	(3,037.5)

## Other Key Statistics:

- In 2017, every \$1 in federal appropriation to DWSRF programs resulted in **\$1.87** disbursed.
- The DWSRF average interest rate in 2017 was **1.6%**, compared to 3.3% market-value interest rate. This lower interest rate results in over **\$560 million** in savings to local community ratepayers over the life of these loans.
- States also awarded **\$306.3 million** as principal forgiveness to communities in 2017. These grant-like funds help keep water rates affordable for communities.
- **22** states sell bonds in order to further leverage their DWSRF programs.

For more information about the Drinking Water State Revolving Fund, please contact us at:

Drinking Water State Revolving Fund Program  
U.S. Environmental Protection Agency  
1201 Constitution Avenue, NW (Mail code 4606M)  
Washington, DC 20460

Internet: [www.epa.gov/drinkingwatersrf](http://www.epa.gov/drinkingwatersrf)

Office of Ground Water and Drinking Water  
August 2018  
EPA 810-K-18001

