DW SRF 2018

DRINKING WATER STATE REVOLVING FUND

WORKING TOGETHER FOR SAFE DRINKING WATER

Department of Health and Human Services

DIRIGO

MAINE

Introduction

MICHAEL ABBOTT, P.E., C.G.

Dear Reader:

The Drinking Water State Revolving Fund (DWSRF) continues to provide essential funding for drinking water infrastructure improvements in Maine. In 2018, the Maine CDC Drinking Water Program (DWP) dedicated over $23.5 million in loans and grants for construction projects at 16 public water systems serving 39 communities in Maine.

Since 1997, the DWSRF has invested nearly $310 million to support the drinking water industry in the State of Maine. These funds have been used to finance:

- Capital improvement programs (infrastructure projects) for drinking water utilities;
- DWSRF program administration;
- Technical assistance to small systems throughout the State;
- Source water protection activities;
- Technical, managerial and financial capacity development;
- Emergency preparedness; and
- Public outreach and education.

In 2018, concerns about emerging contaminants such as per- and polyfluoroalkyl substances (PFAS) and other contaminants were in the forefront of nationwide conversations about drinking water. Staying ahead of these water quality challenges through updates to testing, treatment technology, and infrastructure is essential to ensure continued delivery of safe drinking water to the public.

Safe, reliable, and affordable drinking water is fundamental to the wellbeing and economic prosperity of communities across the State. DWSRF financing of construction projects provides significant cost savings to water ratepayers, including residential customers, small and large businesses, manufacturing facilities, and government entities. These savings allow ratepayers to invest money in other activities, enabling further growth of the economy.

The success of the DWSRF stems from a wide array of individuals and organizations. The funding support of Congress and the Maine Legislature make this affordable financing possible. The staff at the DWP and the Maine Municipal Bond Bank work closely with public water systems, consultants, and contractors. Everyone involved contributes to the overall success of the DWSRF Program. We are grateful for the efforts of all who make this work possible!

Yours for safe drinking water,

M. Abbott

Michael Abbott, P.E., C.G.

Director, Maine CDC Drinking Water Program

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About the DWSRF

The 1996 Amendments to the Safe Drinking Water Act (SDWA) included allocations for the Drinking Water State Revolving Fund (DWSRF). The DWSRF is a State operated program that provides loans and other financial assistance for drinking water improvement projects. The SDWA requires that states match 20 percent of federal grant dollars to fund the DWSRF. This means that every dollar invested by the State of Maine secures five federal dollars. For 2018, Maine invested $2,221,400, allowing the State to access $11,107,000 in federal funding. Combined with funds generated through repayment of prior year DWSRF loans, the Drinking Water Program offered approximately $23.5 million in loans for drinking water improvement projects in Maine.

The DWSRF provides funding to public water systems throughout Maine to improve or replace water system pipes, treatment plants, storage tanks, and sources of water to ensure safe drinking water and provide essential public health protection. Funding for drinking water infrastructure improvement projects is available as low interest loans. Disadvantaged community water systems may receive further assistance through principal forgiveness.

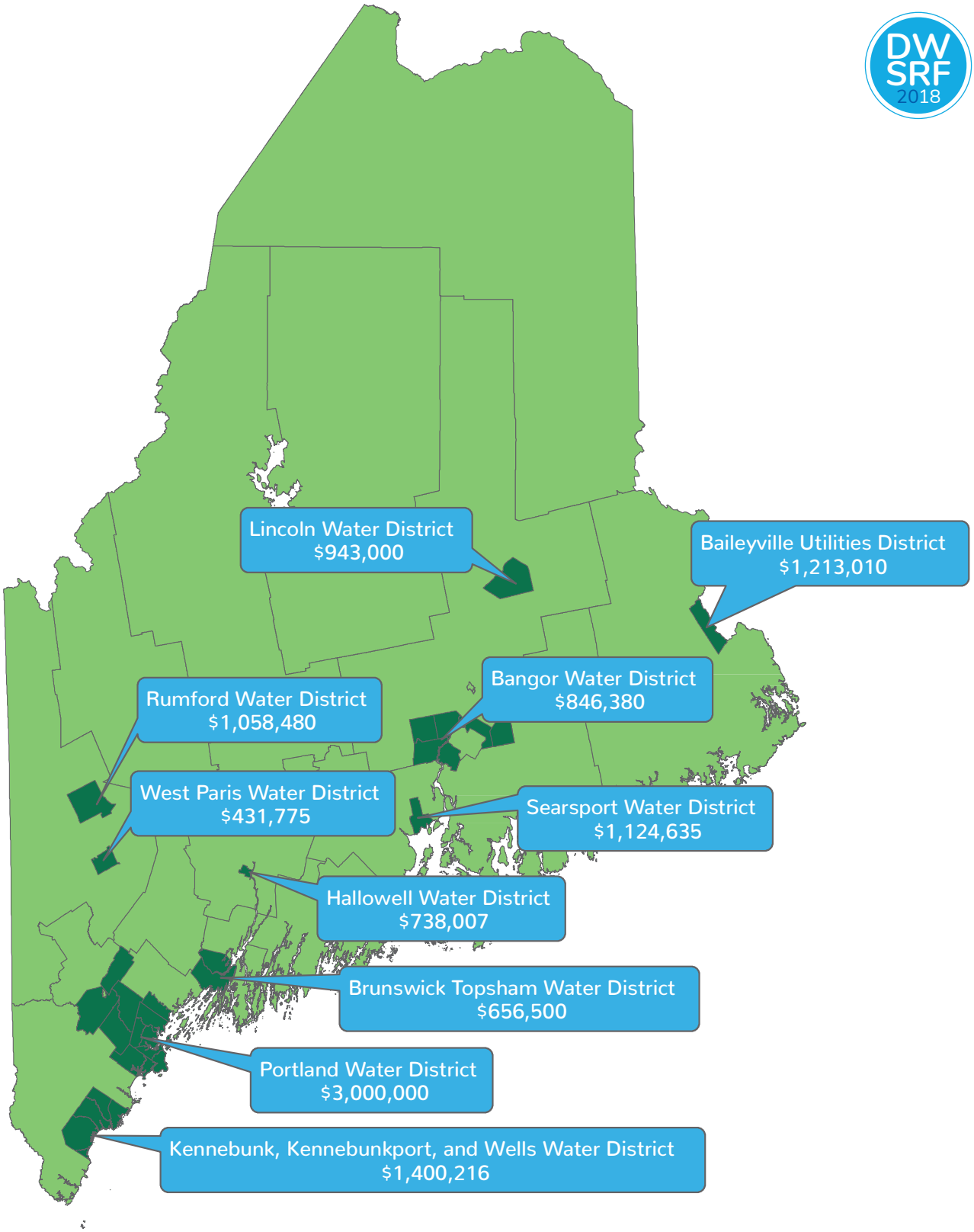
A portion of the DWSRF is used to fund non-construction projects that help improve and protect drinking water quality in Maine. These include Wellhead Protection Grants, Source Water Protection Grants, Capacity Development Grants, Very Small System Compliance Loans, System Consolidation Grants, and Land Acquisition Loans. These programs are designed to provide source water protection, technical assistance, system planning assistance, and land acquisition.

The Department of Health and Human Services and the Maine Municipal Bond Bank (MMBB) administer the DWSRF together. The Drinking Water Program is the lead administrator and is responsible for project management and technical support, as well as overseeing activities. The MMBB is the financial administrator and oversees the loan application process and tracks money to and from the fund.

Since 1997, the DWSRF has provided over $310 million to public water systems through low interest loans and grants.

2018 DWSRF Completed Construction Projects

WATER SYSTEM	TOWNS SERVED	SHORT PROJECT DESCRIPTION	2018 FUNDED AMOUNT
Baileyville Utilities District	Baileyville	Water main replacement	$1,213,010
Bangor Water District	Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie	Water main replacement	$846,380
Brunswick Topsham Water District	Brunswick, Topsham	Treatment upgrades design	$656,500
Hallowell Water District	Hallowell	Water main replacement	$738,007
Kennebunk, Kennebunkport, and Wells Water District	Arundel, Biddeford, Kennebunk, Kennebunkport, Ogunquit, Wells, York	Water main replacement	$1,400,216
Lincoln Water District	Lincoln	Water main replacement	$943,000
Portland Water District	Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham	Water main replacement	$3,000,000
Rumford Water District	Rumford	Water main replacement	$1,058,480
Searsport Water District	Searsport	Water main replacement	$1,124,635
West Paris Water District	West Paris	Water main replacement	$431,775


Lincoln Water District
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Bangor Water District
$846,380
Rumford Water District
$1,058,480
West Paris Water District
$431,775
Searsport Water District
$1,124,635
Hallowell Water District
$738,007
Brunswick Topsham Water District
$656,500
Portland Water District
$3,000,000
Kennebunk, Kennebunkport, and Wells Water District
$1,400,216

2018 DWSRF Non-Construction Projects

CAPACITY DEVELOPMENT GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Bangor Water District	Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie	$10,000
Berwick Water Department	Berwick	$14,500
Bethel Water District	Bethel	$10,000
Bridgton Water District	Bridgton	$12,500
Ellsworth Water Department	Ellsworth	$15,000
Fort Fairfield Utilities District	Fort Fairfield	$9,500
Houlton Mobile Home Park	Houlton	$7,500
Jackman Utility District	Jackman	$4,500
Limerick Water District	Limerick	$3,000
Madawaska Water Division	Madawaska	$10,000
Maine Water Company – Skowhegan Division	Skowhegan	$15,000
Paris Utility District	Paris	$10,000
South Freeport Water District	South Freeport	$12,500
Town of Bar Harbor Water Division	Bar Harbor	$15,000
Waldoboro Water Department	Waldoboro	$7,500
West Paris Water District	West Paris	$8,000

WELLHEAD PROTECTION GRANTS

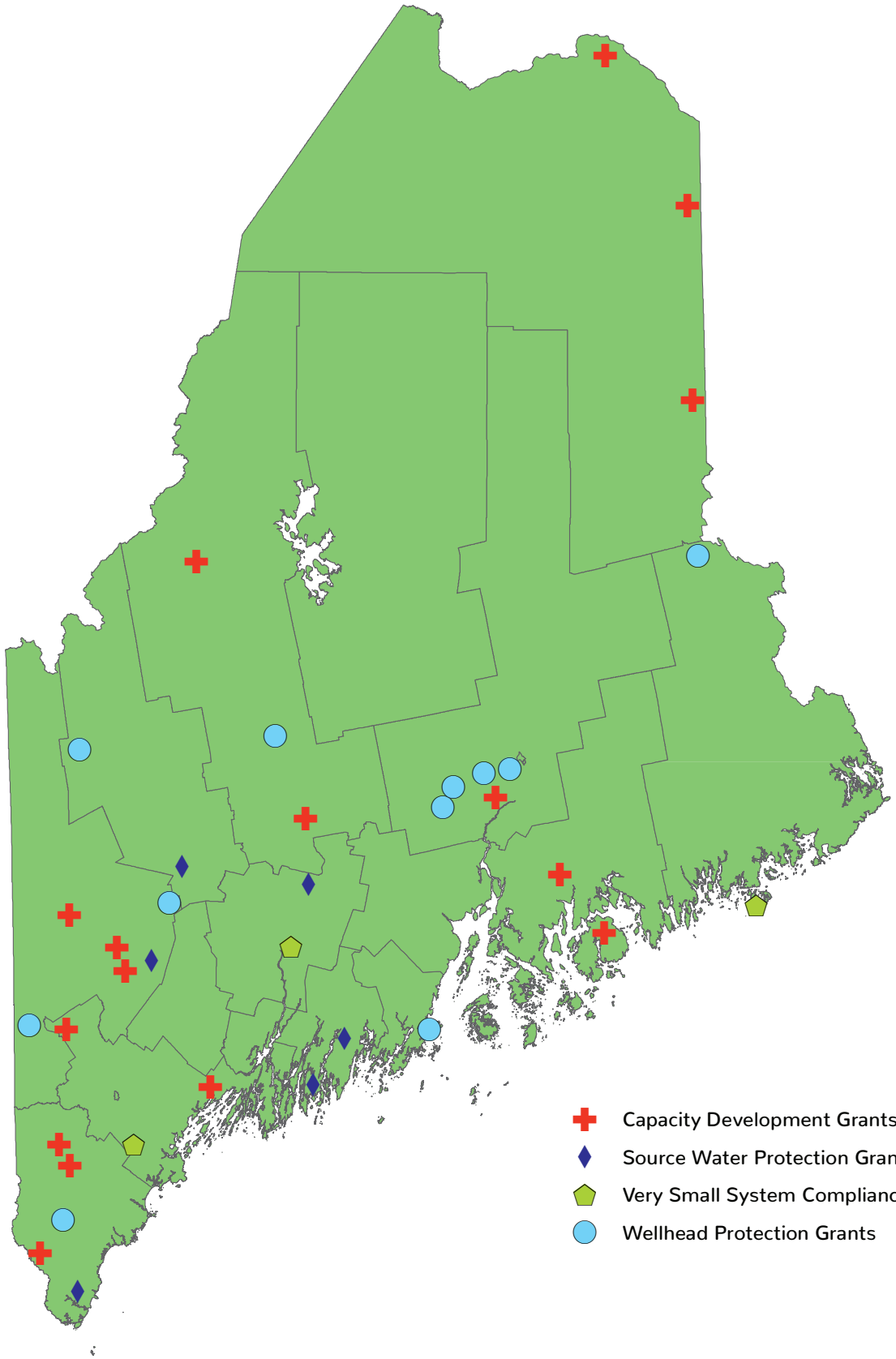
PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Bingham Water District	Bingham, Moscow	$10,000
Canton Water District	Canton	$10,000
Danforth Water District	Danforth	$10,000
Fryeburg Water Company	Fryeburg	$10,000
Grandeur Mobile Home Estates	Carmel	$10,000
Hingham Heights Mobile Home Park	Glenburn	$5,000
Homestead Estates Mobile Home Park	Glenburn	$5,000
Old Town Water District	Old Town, Milford	$10,000
Owls Head Transportation Museum	Owls Head	$10,000
Rangeley Water District	Rangeley	$10,000
Sanford Water District	Sanford	$10,000
South Slope Estates	Carmel	$10,000
Willow Brook Mobile Home Park	Levant	$10,000

SOURCE WATER PROTECTION GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Boothbay Region Water District	Boothbay, Boothbay Harbor, East Boothbay	$10,000
Buckfield Village Corporation Water Department	Buckfield	$10,000
Great Salt Bay Sanitary District	Damariscotta, Newcastle	$5,000
Kennebec Water District	Fairfield, Oakland, Vassalboro, Waterville, Winslow	$10,000
Wilton Water District	Wilton	$10,000
York Water District	York	$10,000

VERY SMALL SYSTEM COMPLIANCE LOANS

PUBLIC WATER SYSTEM	TOWNS SERVED	COMPLIANCE ISSUE	GRANT AMOUNT
Seedlings to Sunflower Childcare	Gorham	Arsenic exceedance	$50,000 in loan funds
MSU 103 Beals Elementary School	Beals	Uranium exceedance	$10,000 in loan funds
Togus Pond Mobile Home Park	Augusta	Radon exceedance	$50,000 in loan funds


Capacity Development Grants
Source Water Protection Grants
Very Small System Compliance Loans
Wellhead Protection Grants

In 2020 DWSRF Funding Gap

The DWSRF will continue to play a critical role in our Maine's future by supporting the provision of safe drinking water for Mainers. Repayments from past DWSRF loans are currently returning about $10.4 million per year, going on to provide loans for new projects. With the "revolving" nature of the DWSRF, that amount will continue to increase as the DWSRF loan pool continues to grow.

In 2019, new DWSRF federal allocations combined with State match funds and repayment funds will allow $24 million for new drinking water infrastructure projects. Although this is an impressive sum, it does not address increasing funding needs to update and replace aging drinking water infrastructure in the State of Maine.

Thirty-two DWSRF applications, representing $44.9 million in drinking water infrastructure improvements, were submitted for the 2019 DWSRF funding cycle. Unfortunately, available DWSRF project funds total approximately $24 million, which will only provide financing assistance for about 46% of the requests.

This funding gap of $20.9 million is only a part of the challenge for properly maintaining public water system infrastructure. The current aging infrastructure replacement rate is inadequate. Funding levels below demand levels is only one factor in the inadequate infrastructure replacement rate. To minimize rate increases on customers, many water systems are only replacing the most critical needs Consequently, the true funding gap is much larger than is currently suggested by project requests. Local leaders will increasingly need to make difficult choices to ensure water systems remain viable into the future.

The maintenance and improvement of Maine's infrastructure is vital to our economy, health, safety, security and to the environment.

$20.9 MILLION FUNDING GAP FOR SAFE DRINKING WATER

DWSRF Over the Years

Since 1997, the DWSRF has provided over $310 million to public water systems through low interest loans and grants. Loan interest rates have averaged 0.79% and have been combined with a total of over $63 million dollars in subsidies. Maine has contributed a total of $39 million in state match, to access over $213 million in federal grants. Many communities have used these funds to address their infrastructure needs. In the 21 years since the DWSRF Program began, the following 15 utilities have utilized approximately half of the available construction funds revitalizing the aging infrastructure in their systems:

SINCE 1997, THE DWSRF HAS PROVIDED OVER $310 MILLION TO PUBLIC WATER SYSTEMS THROUGH LOW INTEREST LOANS AND GRANTS.

BANGOR WATER DISTRICT
$24,880,104

PORTLAND WATER DISTRICT
$18,426,718

PASSAMOQUODDY WATER DISTRICT
$14,913,383

BATH WATER DISTRICT
$13,251,102

KENNEBUNK, KENNEBUNKPORT, AND WELLS WATER DISTRICT
$12,307,919

AUBURN WATER DISTRICT
$10,778,900

PRESQUE ISLE UTILITIES DISTRICT
$10,552,065

BIDDEFORD SACO DIVISION - MAINE WATER COMPANY
$9,195,180

BRUNSWICK TOPSHAM WATER DISTRICT
$8,582,600

MADAWASKA WATER DISTRICT
$7,258,802

CALAIS WATER DEPARTMENT
$6,894,881

GARDINER WATER DISTRICT
$6,603,030

SEARSPORT WATER DISTRICT
$5,976,867

BREWER WATER DEPARTMENT
$5,874,140

OLD TOWN WATER DISTRICT
$5,650,792

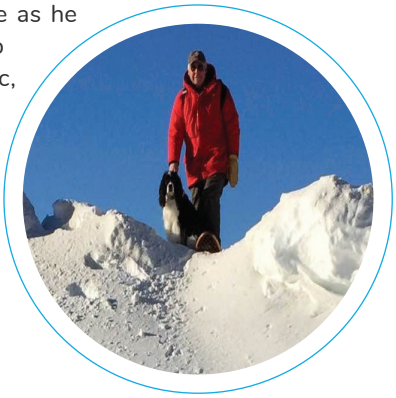
The DWP's DWSRF Project Engineers

McKenzie Parker, P.E.

Originally from Augusta, McKenzie attended the University of Maine in Orono where she graduated with a bachelor's degree in Mechanical Engineering in 2011. After interning at the USGS Water Science Center, McKenzie accepted a position with the Drinking Water Program in 2012 as a community field inspector for Southern Maine. Since then, she has obtained her Professional Engineer license and been reassigned to the DWP's engineering group, where her primary duties include reviewing water system change applications and serving as a project manager for DWSRF projects in the southern half of the state. "My favorite part about working at the DWP is that I am consistently exposed to a wide variety of projects. I could be working on a river crossing on Monday, a million-gallon standpipe on Tuesday, and a water softener for a mom-and-pop restaurant the day after that. It's exciting to have had a hand in so many different projects that all share the same important goal: providing safe, reliable drinking water to the people of Maine." McKenzie currently lives in Westbrook with her newlywed husband, Chris, and their adored labradoodle, Calvin. In her free time, she enjoys traveling, crafting, and exploring the mountains and coasts of her beautiful home state.

Larry Girvan, P.E.

Larry grew up in a large family on a small farm in rural New Brunswick, Canada and emigrated to the United States in 1986. Larry has worked in the construction and engineering industry since 1977. Over the years he has served as a surveyor crew chief, a construction superintendent, an owner's construction inspector, a right-of-way agent, a plant engineer for a utility company, and a partner in an engineering firm. In 2000, he joined the Drinking Water Program as an engineer. Larry holds an engineering degree from the University of Maine, Orono and is a Maine licensed professional engineer. When he is not working, Larry enjoys spending as much time as he can with family. He also likes to cook, play music, travel, golf, and spend time at his cabin in Canada. Larry currently resides in the County with his wife, Andrea and their dog, Cassie.



THE DRINKING WATER PROGRAM'S DWSRF PROJECT ENGINEERS WORK TO ENSURE THAT MAINE'S PUBLIC WATER SYSTEMS GET THE HELP THEY NEED ON THEIR CONSTRUCTION PROJECTS – FROM START TO FINISH.

Construction Projects

BANGOR
WATER DISTRICT

TOWNS SERVED: Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie

DWSRF FUNDED AMOUNT: $846,380

ENGINEER: Bangor Water District

CONTRACTOR: Eastwood Contractors

The Bangor Water District received 2018 DWSRF support for their project to replace approximately 5,400 feet of undersized 1910 cast iron water main. The new main will improve chlorine residuals, reduce the nitrification potential, and ensure continued compliance with the Safe Drinking Water Act.

AMANDA SOUCIER, *P.E.*
District Engineer
Bangor Water District

"With the 2018 SRF funding, we continued in our mission to update some of our oldest water main infrastructure in some of the most densely packed areas in Bangor. As a result, water quality and fire flows have improved to these areas. On a big picture scale, these projects helped us complete some important links for future planning for robust interconnections between neighboring communities' water systems."

BAILEYVILLE
UTILITIES DISTRICT

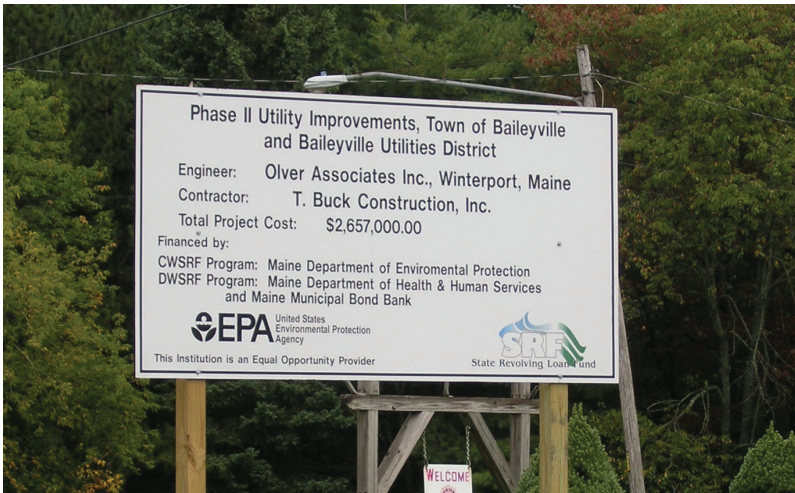
TOWNS SERVED: Baileyville

DWSRF FUNDED AMOUNT: $1,213,010

ENGINEER: Olver Associates, Inc.

CONTRACTOR: T. Buck

The Baileyville Utilities District was awarded 2018 DWSRF funds to complete infrastructure improvements on Broadway Street. The project replaced problematic and undersized cast iron water main and relocated waterlines around manholes with the goal of improving water quality and service reliability. It was completed in conjunction with the Town of Baileyville's sewer project, helping to decrease overall project costs.



RUMFORD
WATER DISTRICT

TOWNS SERVED: Rumford

DWSRF FUNDED AMOUNT: $1,058,480

ENGINEER: Main-Land Development Consultants, Inc.

CONTRACTOR: Sargent Corporation

The Rumford Water District used its 2018 DWSRF funds to replace old water main as part of a downtown revitalization project. The water main improvements will improve water quality, service, and water loss.

BRUNSWICK AND TOPSHAM
WATER DISTRICT

TOWNS SERVED: Brunswick, Topsham

DWSRF FUNDED AMOUNT: $656,500

ENGINEER: CDM Smith

CONTRACTOR: n/a

The Brunswick-Topsham Water District utilized funding from the 2018 DWSRF for the preliminary design of a new treatment process. The design included a treatment process selection for the removal of iron, manganese, and total organic carbon and looked at additional disinfection and corrosion control strategies. This project helps the District continue to provide clean, safe, and reliable drinking water to its consumers.

CRAIG DOUGLAS, *P.E.*

Assistant General Manager

Brunswick and Topsham Water District

"This project enabled the District to bring together leading water experts to identify the best treatment scheme for the communities of Brunswick and Topsham. This project has laid the foundation for a treatment plant design that will provide better water quality at the most reasonable cost, protecting public health and the public wallet. By completing this project, the District will be able to proceed to a final design with significant technical and financial questions addressed to ensure the public gets the best value for their investment."

LINCOLN
WATER DISTRICT

TOWNS SERVED: Lincoln

DWSRF FUNDED AMOUNT: $943,000

ENGINEER: Dirigo Engineering

CONTRACTOR: Trombley Construction, Inc.

The Lincoln Water District's 2018 DWSRF construction replaced approximately 3,800 feet of antiquated water mains in coordination with the Lincoln Public Works Department and Lincoln Fire Department. The project will improve water quality and flow and reduce water loss.

JIM LORD, *P.E.*
Dirigo Engineering

JEFF DAY
Superintendent
Lincoln Water District

"In 2018 the Lincoln Water District was able to replace and upgrade over 3,000 feet of 90-year-old unlined cast iron water mains. Over the years the District had many breaks and leaks in this section, which impacted all areas of Town. The District was able to secure project funding through the DWSRF to complete the work. The District received 40% principal forgiveness, which provided the District with a very favorable funding package and long-term debt service payment, which will help the District to maintain their high level of service while keeping rates reasonable."

PORTLAND
WATER DISTRICT

TOWNS SERVED: Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham

DWSRF FUNDED AMOUNT: $3,000,000

ENGINEER: Portland Water District

CONTRACTOR: Gorham Sand and Gravel, Inc.

The Portland Water District utilized 2018 DWSRF funds for their water main replacement project in South Portland. This project replaced approximately 10,000 feet of circa 1900 cast iron water main to improve service reliability. The project was completed in coordination with a City of South Portland combined sewer overflow abatement project.

SEARSPORT
WATER DISTRICT

TOWNS SERVED: Searsport

DWSRF FUNDED AMOUNT: $1,124,635

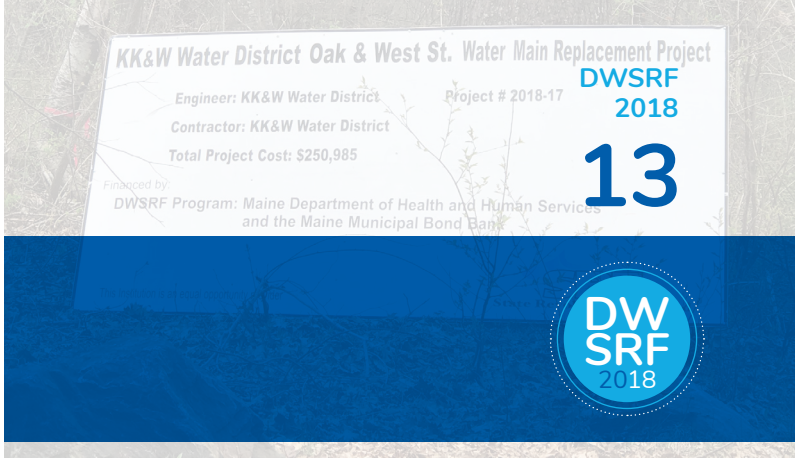
ENGINEER: A. E. Hodsdon Engineers

CONTRACTOR: Ranger Contracting, Inc.

The Searsport Water District's 2018 DWSRF project involved the replacement of approximately 4,800 feet of old, unlined cast iron water main. The old pipes were a potential contamination source and the new transmission mains are an essential component for the continued viability of the distribution system.

HERBERT KRONHOLM
Superintendent
Searsport Water District

"In 2017 and 2018, the Searsport Water District applied for and received a total of $1,325,120 for the purpose of replacing an old 1909 era unlined cast iron water main along our Route 1 corridor here in Searsport. The loan portion of this project totaled $560,121 and the principal forgiveness amount totaled $785,048. Without the principal forgiveness together with the low interest rate, we would not have been able to complete this project without significantly increasing water rates. As a disadvantaged community, we rely on State and Federal funds, along with low interest rates that provide us with the ability to continue to maintain and make necessary upgrades to our facilities and infrastructure."



KENNEBUNK, KENNEBUNKPORT, AND WELLS
WATER DISTRICT

TOWNS SERVED: Arundel, Biddeford, Kennebunk, Kennebunkport, Ogunquit, Wells, York

DWSRF FUNDED AMOUNT: $1,400,216

ENGINEER: Kennebunk, Kennebunkport, and Wells Water District

CONTRACTOR: Kennebunk, Kennebunkport, and Wells Water District

The Kennebunk, Kennebunkport, and Wells Water District received 2018 DWSRF funds for four water main replacement projects. The water main projects replaced approximately 6,500 feet of obsolete water main in conjunction with the street reconstruction projects in Kennebunk and Kennebunkport. The water main replacement will improve water quality and flows.

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HALLOWELL
WATER DISTRICT

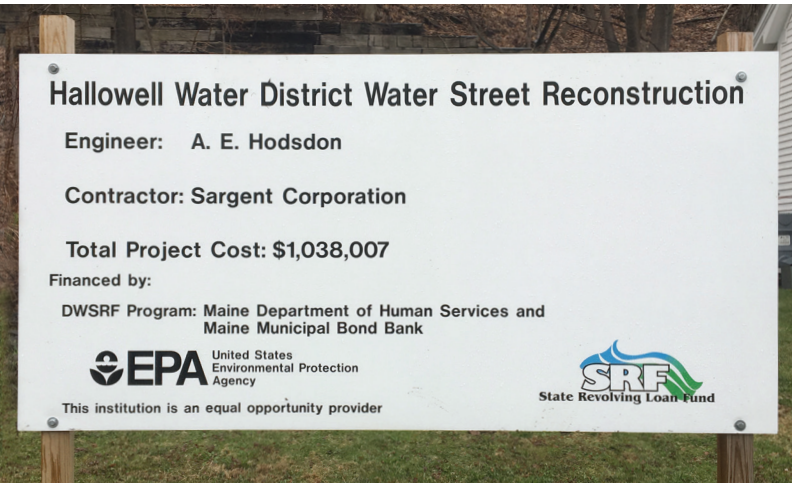
TOWNS SERVED: Hallowell

DWSRF FUNDED AMOUNT: $738,007

ENGINEER: A.E. Hodsdon Engineers

CONTRACTOR: Sargent Corporation

The Hallowell Water District secured 2018 DWSRF funding for their project to replace approximately 3,260 feet of century old water main in coordination with a Maine Department of Transportation road reconstruction work. The old cast iron main exhibited tubercles, which can harbor bacteria and impact water quality. The new lined ductile iron water main will help to improve water quality and flow.



WEST PARIS
UTILITIES DISTRICT

TOWNS SERVED: West Paris

DWSRF FUNDED AMOUNT: $431,775

ENGINEER: A.E. Hodsdon Engineers

CONTRACTOR: Longchamps and Sons, Inc.

The West Paris Utilities District was awarded 2018 DWSRF funds for their project to replace 2,200 feet of old asbestos cement pipe that serves as a portion of their transmission main. The old pipe has a history of multiple breaks and was a potential contamination source. The new pipe will improve water quality and flow.

AL HODSDON III, *P.E.*
A. E. Hodsdon Engineers

"The customers now have a reliable transmission main to the distribution system. Without this replacement, the District would be faced with $5,000 to $10,000 for each break. Now this part of the system has a new 8-inch ductile iron main that will serve the District for the next 75 years. The District was fortunate to receive 20% loan forgiveness on the project. This forgiveness helped to keep the necessary rate increase as low as possible. Without the DWSRF funding, the cost to customers would be noticeably greater."

Projects From Prior Years Completed in 2018

BAILEYVILLE
UTILITIES DISTRICT

TOWNS SERVED: Baileyville

DWSRF FUNDED AMOUNT: $985,760

ENGINEER: Olver Associates, Inc.

CONTRACTOR: T Buck Construction, Inc.

The Baileyville Utilities District finished an important water main upgrade project utilizing the DWSRF. The District replaced old, problematic cast iron water lines in coordination with the Town of Baileyville. Water lines remaining under a mill expansion area were properly abandoned and others were relocated around manholes. The project helped to improve water quality and flow.

SOUTHWEST HARBOR
WATER AND SEWER DISTRICT

TOWNS SERVED: Southwest Harbor

DWSRF FUNDED AMOUNT: $83,830

ENGINEER: Southwest Harbor Water and Sewer District

CONTRACTOR: AR Control

The Southwest Harbor Water and Sewer's DWSRF project to upgrade the system's filter plant was completed in 2018. The project replaced the plant's failing actuators and valves. This project was important as these components allow water to enter the filters, backwash, and purge and historically caused significant concern in the maintenance of the system's storage tank water levels.

STEVEN T. KENNY
District Manager
Southwest Harbor Water and Sewer District

"As a small water system, we have found the SRF program, and its representatives, a vital part of our abilities to supply our customers with uninterrupted supply of potable water. With very limited funds and customer base we could not have been able to replace our faulty actuator valves at our treatment plant without SRF loan/grants. The expertise and professionalism of the SRF staff has made the process easy and their guidance is very helpful for systems like ours with limited staff and knowledge of these types of projects."

ELLSWORTH
WATER DEPARTMENT

TOWNS SERVED: Ellsworth

DWSRF FUNDED AMOUNT: $1,018,080

ENGINEER: Woodard and Curran

CONTRACTOR: R.F. Jordan and Sons Construction, Inc.

In 2018, the Ellsworth Water Department completed a DWSRF-funded project to replace approximately 4,500 feet of circa 1880 water main. The replacement improved water quality and flows. The project was completed in coordination with a Maine Department of Transportation road project.

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LIMESTONE
WATER DISTRICT

TOWNS SERVED: Limestone

DWSRF FUNDED AMOUNT: $1,080,0000

ENGINEER: Wright-Pierce

CONTRACTOR: DN Tank

The Limestone Water District received DWSRF funding in 2017 for a new pre-stressed concrete water storage tank. The previous storage tank was at the end of its useful life, had no mixing system, and, given its age, likely contained lead in the coating. The new tank will have a useful life of up to 75 years and will improve water quality and provide adequate storage.

MILBRIDGE
WATER DISTRICT

TOWNS SERVED: Milbridge

DWSRF FUNDED AMOUNT: $231,795

ENGINEER: AE Hodsdon

CONTRACTOR: Border Electric

DWSRF funding supported the Milbridge Water District's projects to install a basic SCADA system to monitor standpipe levels, control the pump houses, monitor flows and chlorine levels, and install a tank mixer. The new SCADA system provides the District with a reliable way to monitor the tank levels and pump status. It will result in power cost savings, time, and water consumption. The new tank mixers allow the tank to run at higher levels during the winter and alleviate low pressure problems.

MADAWASKA
WATER DISTRICT

TOWNS SERVED: Madawaska Water District

DWSRF FUNDED AMOUNT: $1,511,162

ENGINEER: Woodard and Curran

CONTRACTOR: McGillian, Inc.

The Madawaska Water District successfully completed its 2017 DWSRF project to replace approximately 4,600 feet of aging water main. The project was conducted in coordination with the Town of Madawaska's combined sewer overflow abatement program. The section of main was known to have lead joints was experiencing higher than average breaks. The project helped to improve water quality and flows, helping the District continue its mission of serving safe and reliable drinking water.

DON CHASSE
Superintendent
Madawaska Water District

"Being able to secure SRF funding through the Maine Drinking Water Program has allowed the Madawaska Water District to complete vital water main line replacement projects on shared streets with the Town of Madawaska's sewer replacement projects. Without these funds we would not have been able to undertake these water line replacements on our own where the District would have been 100% responsible for engineering costs and surface re-paving. Working with the Town in conjunction with water and sewer coordination really worked well to address both of our needs."

BANGOR
WATER DISTRICT

TOWNS SERVED: Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie

DWSRF FUNDED AMOUNT: $920,714

ENGINEER: Bangor Water District

CONTRACTOR: Eastwood Contractors

Employing DWSRF funds, the Bangor Water District completed a much-needed infrastructure upgrade. The project replaced approximately 1,700 feet of water main. The unlined cast iron pipes were over 100 years old and were subject to tuberculation. Replacement helped to improve water quality and flows. The project was conducted in conjunction with a City of Bangor road work.

KENNEBUNK, KENNEBUNKPORT, AND WELLS
WATER DISTRICT

TOWNS SERVED: Arundel, Biddeford, Kennebunk, Kennebunkport, Ogunquit, Wells, York

DWSRF FUNDED AMOUNT: $67,670

ENGINEER: Kennebunk, Kennebunkport, and Wells Water District

CONTRACTOR: Kennebunk, Kennebunkport, and Wells Water District

The Kennebunk, Kennebunkport, and Wells Water District finished their 2017 DWSRF project to install submersible mixers in four of the District's finished water storage tanks to enhance water quality within the distribution system.

SOUTH BERWICK
WATER DISTRICT

TOWNS SERVED: South Berwick

DWSRF FUNDED AMOUNT: $856,995

ENGINEER: WRIGHT-PIERCE; CIVIL CONSULTANTS

CONTRACTOR: Apex; Mick Construction Corporation; Arsenic

The South Berwick Water District had two DWSRF projects. The first was an arsenic removal treatment at the Junction Road Station and the second was a main replacement protect that involved approximately 1,300 feet of old cast iron water main. The arsenic removal treatment was installed to project public health and improve water quality. The water main replacement project helped to improve water quality and service reliability. The main preplacement project was completed ahead of a Town of South Berwick road reconstruction project.

PORTLAND
WATER DISTRICT

TOWNS SERVED: Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham

DWSRF FUNDED AMOUNT: $2,000,000

ENGINEER: Wright-Pierce

CONTRACTOR: Apex Construction, Inc.

The Portland Water District finished its DWSRF-funded project to install a new booster station at Wards Hill. The new station will eventually replace the Gorham pump station and the Prides Corner pump station in Westbrook. The project was recommended in the District's comprehensive plan to address overall system needs and to facilitate the eventual decommissioning of the two old pump stations.

PAUL RODRIGUEZ, *P.E.*
Senior Project Engineer
Portland Water District

"Updated equipment and enhanced redundancy facilitates organizational efficiencies with respect to deployment of resources and mitigates the potential for corrective maintenance issues to arise. The program enhanced our ability to fund this project on the desired timeline, as the facility being replaced was close to exceeding its peak capacity. The program's grant offering and low interest loans are critical to minimizing the impact of upgrade projects like the Wards Hill Pump Station on the ratepayers. Also, the new pump station enhanced the safety of the area communities by increasing fire-fighting capabilities of the fire departments due to increased pumping capacity."

KEEP YOUR DRINKING WATER SAFE
Protect Your Source • Take Your Samples • Maintain Your Treatment • Inspect Your Pipes & Tanks

DWSRF Performance Measures

Percentage of Project Applications Funded

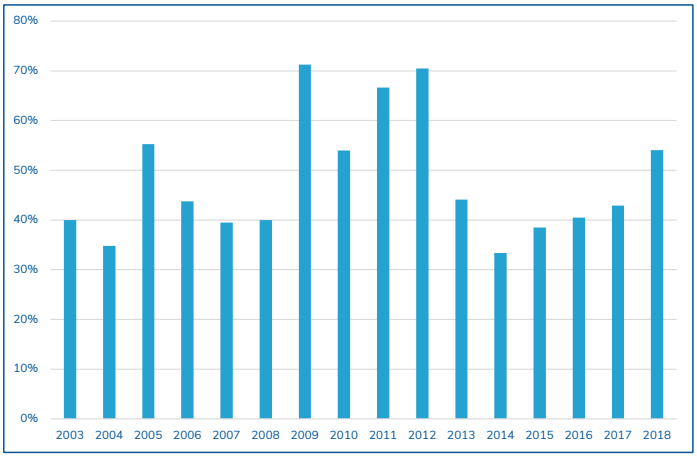


Figure 1

Public water system request to fund projects continue to exceed available money through the DWSRF, highlighting the ongoing and continued need for water systems to make improvements to their infrastructure.

DWSRF Loan Forgiveness

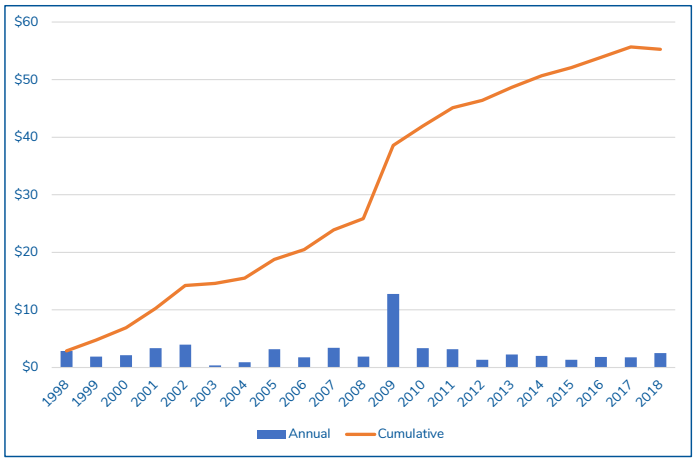


Figure 2

Economically disadvantaged water systems may have a portion of the loan principal forgiven if a water system's existing rates exceed a "water rate goal" based on the Median Household Income of the community. The year 2009 is an outliner because of the requirement of the American Recovery and Reinvestment Act that each protect receive at least 30% "principal forgiveness".

DWSRF Loan Commitments

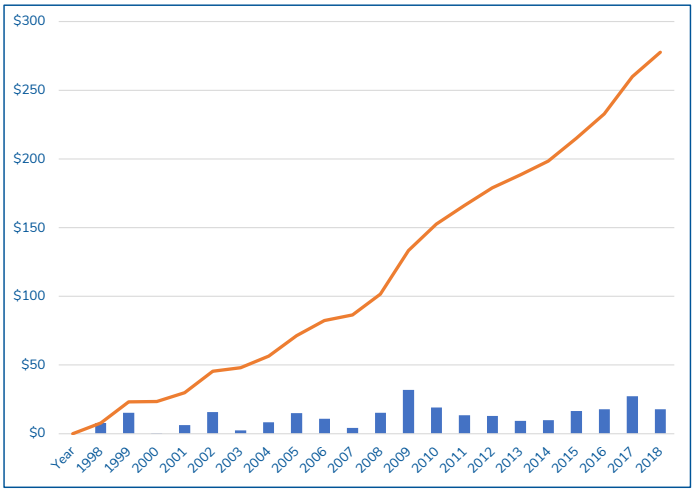


Figure 3

Since 1997, the DWSRF has provided more than $310 million in funding to over 380 infrastructure improvement projects at Maine's public water systems.

DWSRF Loan Repayments

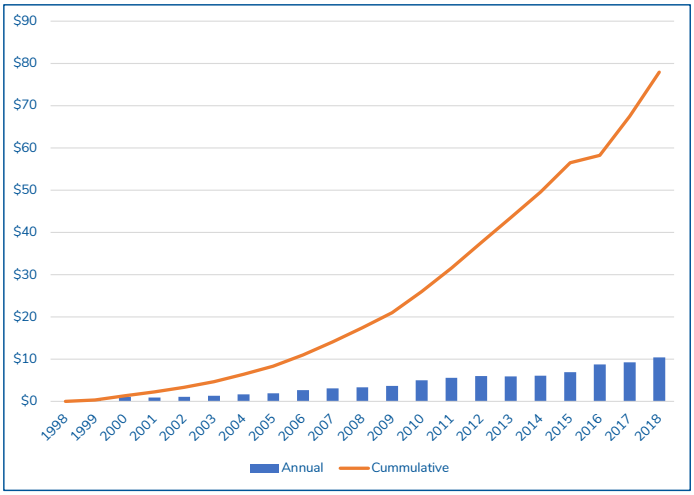


Figure 4

The DWSRF annual repayment stream is currently about $10.4 million per year and will continue to increase each year.

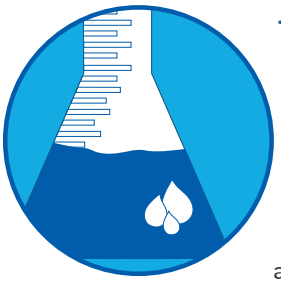
From source to tap the DWSRF helps water systems deliver safe water

Core Message

The Drinking Water Program's core message revolves around the belief that water systems should continually work to identify, reduce, and eliminate risks and vulnerabilities to ensure the provision of safe drinking water. The DWSRF plays an integral role in carrying out the DWP's core message, as it enables public water systems to make improvements to their system in each of these fundamental areas. As a result, investments made by public water systems through the DWSRF support their continued ability to provide safe drinking water.

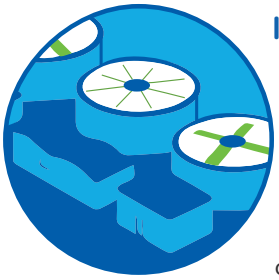
Protect Your Source

The most important part of any public water system is their drinking water source. A high quality, well-protected source can provide cost-effective and safe drinking water. The DWSRF provides funding, both for the construction and development of new and backup drinking water sources and for source protection projects, including purchasing land integral for drinking water protection.



Take Your Samples

Not only is drinking water sampling a requirement of all public water systems, it also provides the assurance that water is safe to drink. The DWSRF provides funding for water system grants, technical assistance providers, and operator training to assist water systems in developing and implementing plans for sample collection, data management, and reporting.

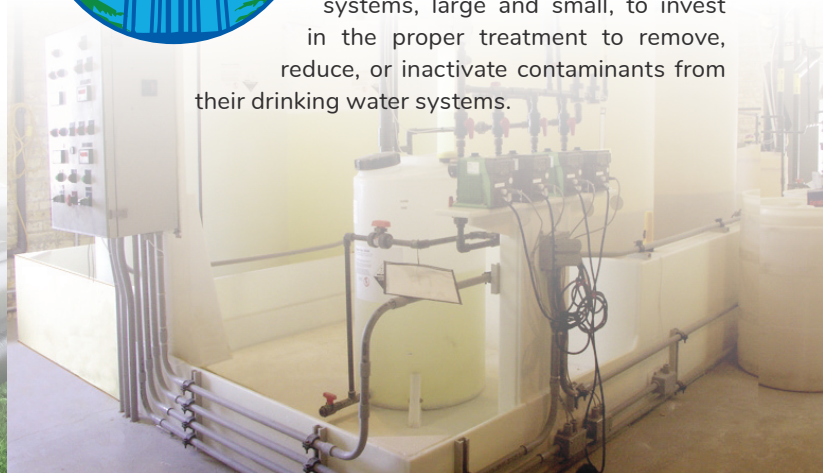


Inspect Your Pipes and Tanks

Storage tanks and a network of piping (also known as a distribution system) are an important part of a public water system's ability to provide safe, clean water to consumers. If not regularly inspected and properly maintained, pipes and tanks can introduce contaminants or result in pressure too low to deliver water to each tap. The number of funding requests to the DWSRF for storage tank and water main rehabilitation or replacement projects is growing. This trend is expected to continue, as public water systems continue efforts with maintaining aging water storage infrastructure.

Maintain Your Treatment

Treatment systems are an important part of delivering safe drinking water for many public water systems throughout the State. The DWSRF enables public water systems, large and small, to invest in the proper treatment to remove, reduce, or inactivate contaminants from their drinking water systems.



Source Water Protection Grants

The Source Water Protection Grant Program awards grants to community and non-profit, non-community public water systems for projects that will help to protect their surface water source from contamination. Specifically, grants are awarded for projects that demonstrate a commitment to the ongoing protection of a drinking water source. Grants are awarded up to $5,000 per project. A few grants of $10,000 may be available depending on the scope of the project.

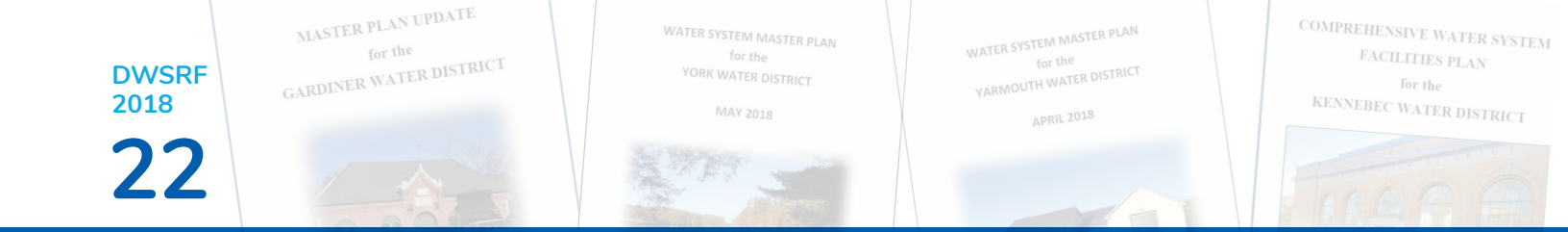
PUBLIC WATER SYSTEM	TOWNS SERVED	PROJECT DESCRIPTION	GRANT AMOUNT
Boothbay Region Water District	Boothbay, Boothbay Harbor, East Boothbay	Water quality sampling, shoreline survey, invasive plant monitoring, and Lake Friendly Grant support	$10,000
Buckfield Village Corporation Water Department	Buckfield	Mitigate one or more high priority sites identified in watershed survey of North Pond	$10,000
Great Salt Bay Sanitary District	Damariscotta, Newcastle	Install a surveillance camera system around intake	$5,000
Kennebec Water District	Fairfield, Oakland, Vassalboro, Waterville, Winslow	Support the LakeSmart program	$10,000
Wilton Water District	Wilton	Install source water protection signs, start Lake Smart Program, conduct in-lake monitoring	$10,000
York Water District	York	Trail management and improvement to reduce erosion	$10,000

Since 2013, the York Water District has utilized approximately $60,000 is source water protection grant funds to reduce erosion in their watershed and protect their drinking water source. The photos below show before (left) and after (right) the York Water District's trail reconstruction project.

Wellhead Protection Grants

The Wellhead Protection Grant Program awards grants to community and non-profit, non-community public water systems for projects that will help to protect their groundwater source from contamination. Specifically, grants are awarded for projects that demonstrate a commitment to the ongoing protection of a drinking water source. Grants are awarded up to $5,000 per project. A few grants of $10,000 may be available depending on the scope of the project.

PUBLIC WATER SYSTEM	TOWNS SERVED	PROJECT DESCRIPTION	GRANT AMOUNT
Bingham Water District	Bingham, Moscow	Wellhead security	$10,000
Canton Water District	Canton	Wellhead security	$10,000
Danforth Water District	Danforth	Wellhead security, wellhead protection signs, education and outreach materials	$10,000
Fryeburg Water Company	Fryeburg	Revise wellhead protection area	$10,000
Grandeur Mobile Home Estates	Carmel	Remove potential sources of contamination	$10,000
Hingham Heights Mobile Home Park	Glenburn	Remove potential sources of contamination	$5,000
Homestead Estates Mobile Home Park	Glenburn	Remove potential sources of contamination	$5,000
Old Town Water District	Old Town, Milford	Wellhead security	$10,000
Owls Head Transportation Museum	Owls Head	Install bollards around wellheads	$10,000
Rangeley Water District	Rangeley	Remove potential sources of contamination	$10,000
Sanford Water District	Sanford	Wellhead security	$10,000
South Slope Estates	Carmel	Remove potential sources of contamination	$10,000
Willow Brook Mobile Home Park	Levant	Remove potential sources of contamination	$10,000



Capacity Development Grants

Capacity Development Grants help public water systems with the preparation of documents that will assist them in the maintenance or enhancement of water quality, by identifying possible improvements in systems' technical, financial, and managerial operations (capacity development.) Water systems can receive grants for 50% of the document cost, up to a maximum grant amount of $15,000.

PUBLIC WATER SYSTEM	TOWNS SERVED	PROJECT DESCRIPTION	GRANT AMOUNT
Bangor Water District	Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie	Engineering study for standpipe and pump station replacement	$10,000
Berwick Water Department	Berwick	Disinfection byproduct formation evaluation and alternatives analysis	$14,500
Bethel Water District	Bethel	Comprehensive water system study	$10,000
Bridgton Water District	Bridgton	Hydrogeologic study of existing bedrock and gravel pack wells	$12,500
Ellsworth Water Department	Ellsworth	Hydraulic model	$15,000
Fort Fairfield Utilities District	Fort Fairfield	Master plan update	$9,500
Houlton Mobile Home Park	Houlton	Capital improvement plan	$7,500
Jackman Utility District	Jackman	Capital improvement plan	$4,500
Limerick Water District	Limerick	Standard operating procedures, emergency response plan, and cross connection control plan	$3,000
Madawaska Water Division	Madawaska	Master plan and hydraulic model update	$10,000
Maine Water Company – Skowhegan Division	Skowhegan	Master plan update	$15,000
Paris Utility District	Paris	Master plan update	$10,000
South Freeport Water District	South Freeport	Comprehensive system assessment	$12,500
Town of Bar Harbor Water Division	Bar Harbor	Master plan and hydraulic model update	$15,000
Waldoboro Water Department	Waldoboro	Master plan update	$7,500
West Paris Water District	West Paris	Comprehensive system facilities plan	$8,000

Very Small System Compliance Loan

The Very Small System Compliance Loan Program was established in 2010 for very small systems. Eligible systems include all community systems not regulated by the Public Utilities Commission with a population of 100 or less and all not-for-profit, non-transient, non-community water systems. Examples include mobile home parks, apartment buildings, nursing homes, and schools.

This loan program provides 100% principal forgiveness (up to $50,000) for water treatment improvements required to achieve compliance with a current of future Safe Drinking Water Act requirement, excluding the Revised Total Coliform Rule. Examples of eligible projects include but are not limited to: treatment systems to resolve compliance issues with lead, copper, radon, arsenic, or antimony levels.

To date, 33 public water systems have received funding and resolved compliance issues. Total project expense of $431,651 have improved water quality for 3,858 users, with an average cost of $112 per user. Nine water treatment systems were installed for removal of arsenic, 16 for radon/uranium removal, eight for corrosion control to address lead and copper compliance.

PUBLIC WATER SYSTEM	TOWNS SERVED	COMPLIANCE ISSUE	GRANT AMOUNT
Seedlings to Sunflower Childcare	Gorham	Arsenic exceedance	$50,000
MSU 103 Beals Elementary School	Beals	Uranium exceedance	$10,000
Togus Pond Mobile Home Park	Augusta	Radon exceedance	$50,000

Water System Consolidation Grants

Water System Consolidation Grants provide partial funding to join two water systems. The public water system applying for consolidation must have a technical, managerial, or financial capacity issue that will be addressed by the consolidation with the more viable public water system. The more viable, receiving public water system but not show technical, managerial, or financial capacity issues. Finally, the consolidation cannot result in system capacity issues. The Consolidation Grant funds up to 50 percent of the cost of the water system consolidation for for-profit facilities and up to 75 percent of the cost of a water system consolidation for not-for-profit facilities, up to a maximum of a $100,000 reimbursement.

Land Acquisition Loans

The Land Acquisition Loan program provides low interest loans to community and non-profit non-community public water systems for the purchase or legal control of land in drinking water source protection areas. Land acquisition is a key component of safe and secure drinking water and the protection of public health. Shoreline and direct watershed land use and development have a major impact on the quality of water available to a water system and control of those land uses is an extremely cost-effective way of managing future water treatment cost.

The 1996 Amendments to the federal Safe Drinking Water Act stress the importance of preventing drinking water contamination through source water protection and water system management. In Source Water Protection: *Best Management Practices and Other Measures for Protecting Drinking Water Supplies*, the EPA notes that "the best way to control activities within sensitive areas is to purchase land and/or development rights to that land." Land Acquisition Loans continue to be made available to any water system that is presented with the opportunity to purchase land integral to the protection of their drinking water system. Land acquisition loans have ranged from a purchase of 2.3 acres all the way up to nearly 1,200 acres.

In 2019, the Drinking Water Program updated the Land Acquisition Loan Program. To further encourage systems to invest in protecting their source of drinking water, low-interest loans under the LAL will now be eligible for 50% principal forgiveness up to $50,000 for the purchase of land and/or conservation easement in a drinking water source protection area.

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Maine Municipal Bond Bank

SRF State Revolving Loan Fund

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