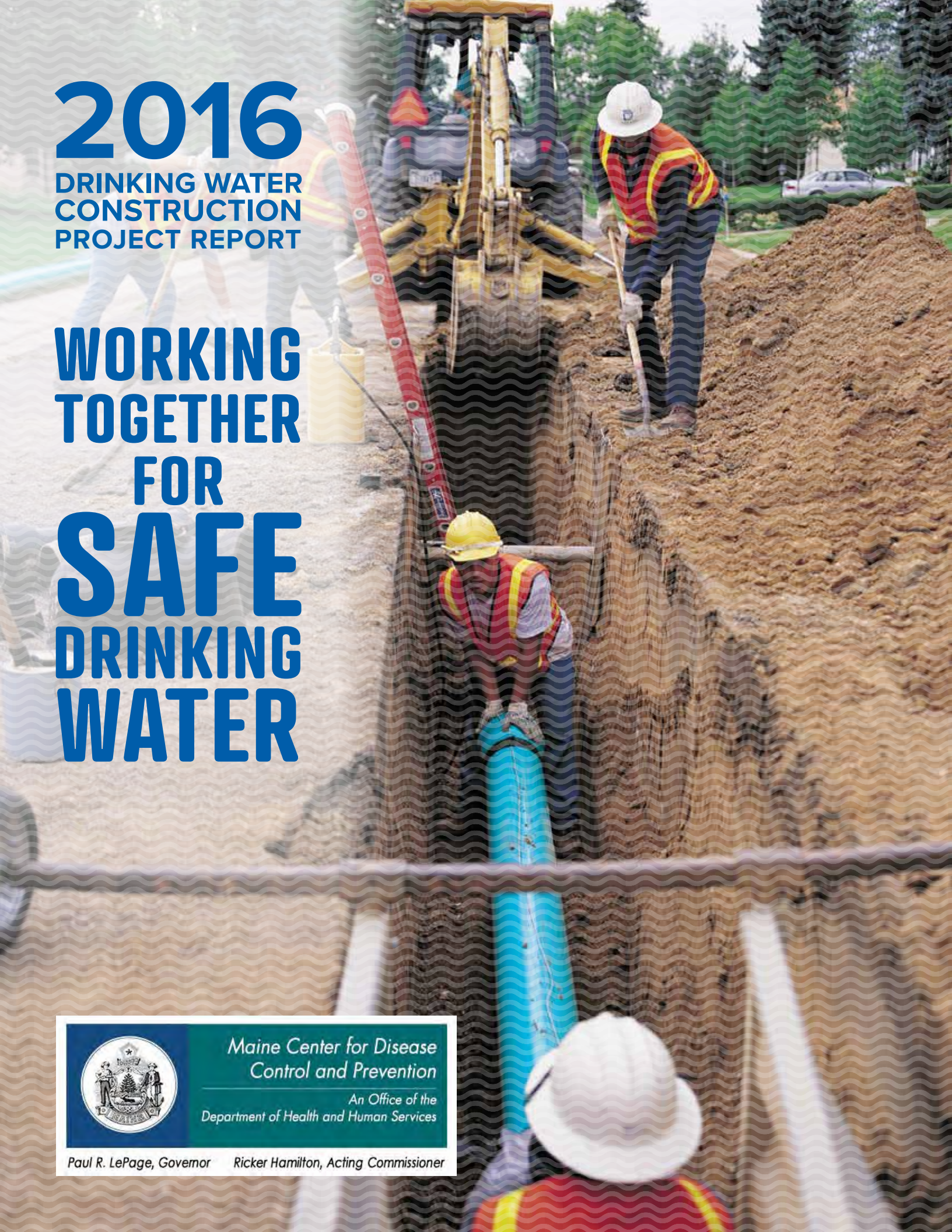
# 2016
## DRINKING WATER CONSTRUCTION PROJECT REPORT

# WORKING TOGETHER FOR SAFE DRINKING WATER




Maine Center for Disease Control and Prevention

An Office of the Department of Health and Human Services

Paul R. LePage, Governor  Ricker Hamilton, Acting Commissioner

# DWSRF 2016 Introduction

Dear Reader,

The Drinking Water State Revolving Fund (DWSRF) continues to play an essential role in the ongoing improvements to public water system infrastructure in Maine. In 2016, the DWSRF dedicated over $19 million in loans and grants for construction projects at 44 public water systems serving 81 different communities in Maine. The continued growth of the DWSRF funding highlights not only the success of the DWSRF but also the continued demand for affordable financing for public water system improvements.

In 2016, there seemed to be a constant stream of news media reports regarding concerns about drinking water quality in numerous locations across the United States. Particularly, the lead in drinking water crisis in Flint, Michigan highlighted the foundational public health protection need of the Safe Drinking Water Act and the requirement for continued vigilance in the work we do. Maine is fortunate to have an abundance of clean, fresh water in its lakes, ponds, rivers, and wells. However, the infrastructure necessary to treat and deliver this water to consumers is in continual need of upkeep and replacement.

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

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 program possible. The staff at the Maine Center for Disease Control and Prevention Drinking Water Program, part of the Department of Health and Human Services, and the Maine Municipal Bond Bank continue to perform exceptionally in their responsibilities. We are grateful for the efforts of all who make this work possible.

I hope you find this report informative and enjoyable.

Yours for safe drinking water,

Roger L. Crouse, P.E.

Manager, Maine CDC Drinking Water Program

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# About the DWSRF

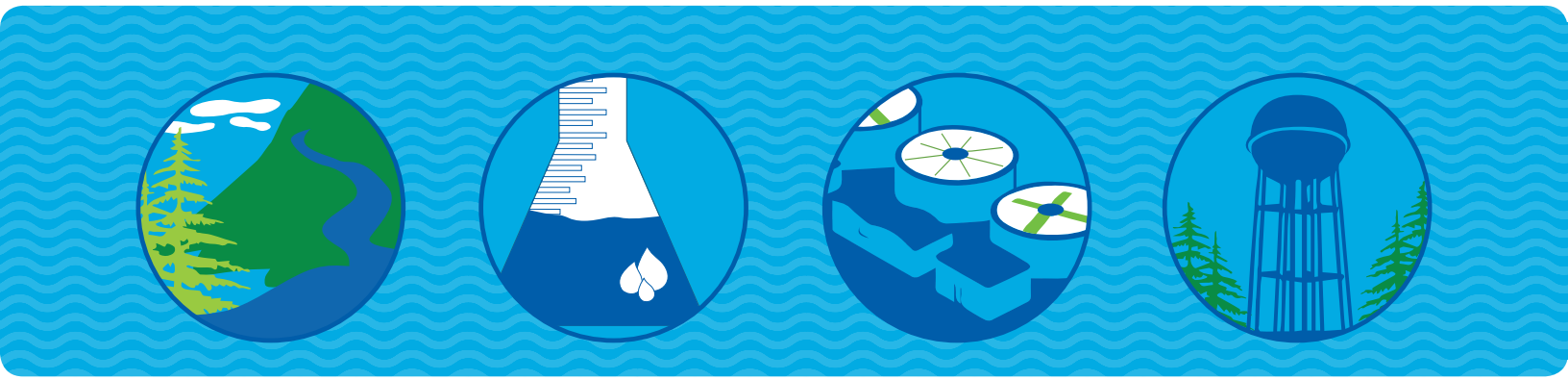
The 1996 Amendments to the Safe Drinking Water Act (SDWA) included allocations for the DWSRF. The DWSRF is a state operated program that provides loans and other financial assistance for drinking water improvement projects. The SDWA requires that states match 20 percent of federal dollars to fund the DWSRF program. This requirement means that every one dollar invested by the State of Maine secures five federal dollars. In 2016, Maine invested $1,662,400, allowing the State to access $8,312,000 in federal funding. Combined with funds generated through repayment of prior year DWSRF loans, the Drinking Water Program was able to offer approximately $18 million in loans for drinking water improvement projects in Maine in 2017.

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. This funding of drinking water infrastructure improvement projects is available as low interest loans for qualified public water systems. 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 funding programs 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 Maine Center for Disease Control and Prevention Drinking Water Program (DWP), part of the Department of Health and Human Services, and the Maine Municipal Bond Bank (MMBB) administer the DWSRF together. The DWP 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 $230 million to public water systems through low interest loans and grants.



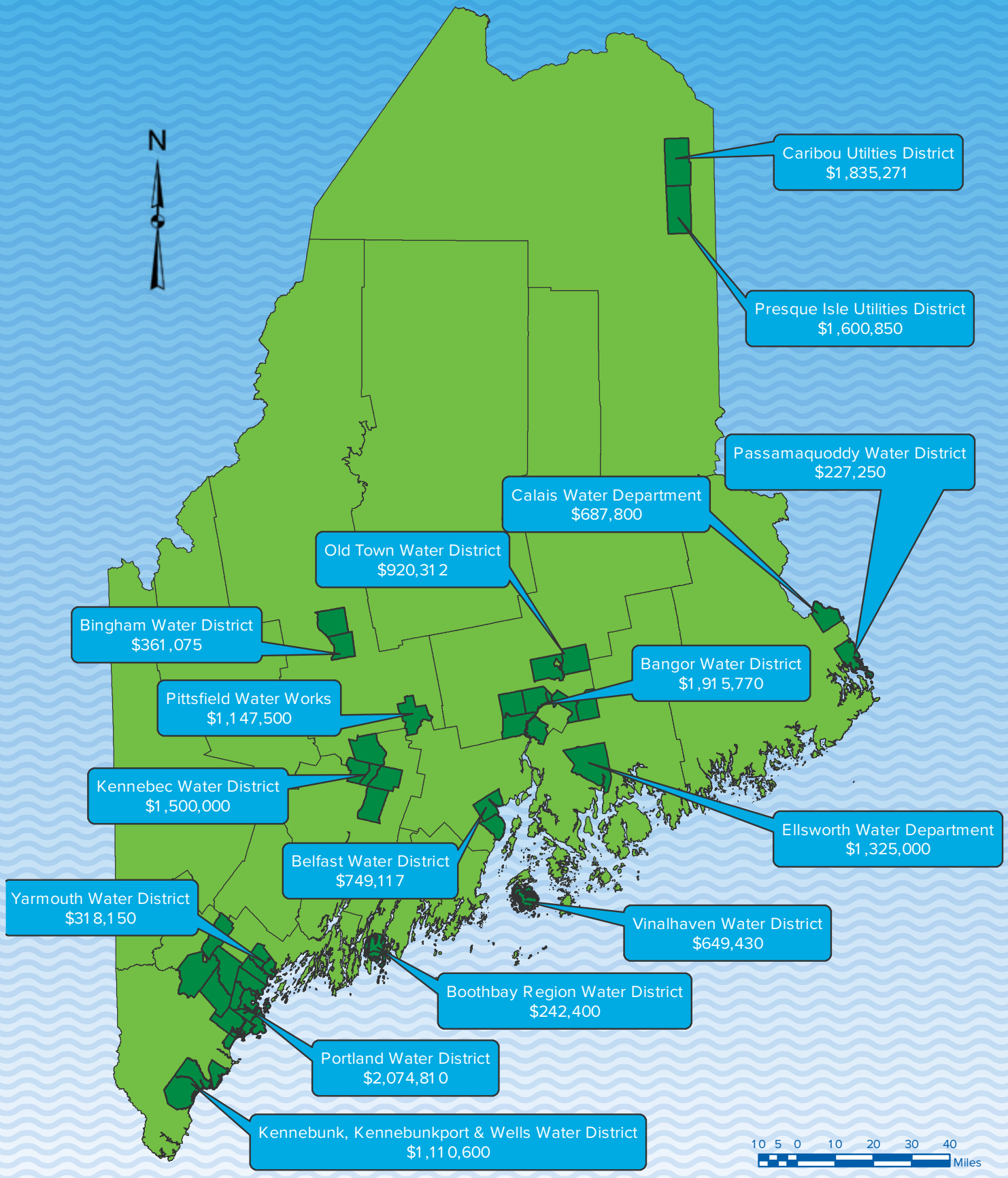
Water Drop Graphics Designed by starline / Freepik

DWSRF 2016

# Construction Projects At A Glance

| WATER SYSTEM | TOWNS SERVED | SHORT PROJECT DESCRIPTION | 2016 DWSRF FUNDED AMOUNT |
|---|---|---|---|
| Bangor Water District | Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie | Water main replacement | $1,915,770 |
| Belfast Water District | Belfast, Northport, Searsport | Water main replacement | $749,117 |
| Bingham Water District | Bingham, Moscow | New well installation | $361,075 |
| Boothbay Regional Water District | Boothbay, Boothbay Harbor, East Boothbay | New water main installation | $242,400 |
| Calais Utilities District | Calais | Water main replacement | $687,800 |
| Caribou Utilities District | Caribou | Water main replacement | $1,835,271 |
| Ellsworth Water Department | Ellsworth | Water main replacement | $1,325,000 |
| Kennebec Water District | Fairfield, Oakland, Vassalboro, Waterville, Winslow | Pump station upgrade | $1,500,000 |
| Kennebunk, Kennebunkport, and Wells Water District | Kennebunk, Kennebunkport, Wells | Water main replacement | $1,110,600 |
| Old Town Water District | Old Town, Milford | Water main replacement | $920,312 |
| Passamaquoddy Water District | Eastport, Perry | Update roughing filter | $227,250 |
| Pittsfield Water Works | Pittsfield | Water main replacement | $1,147,500 |
| Portland Water District | Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham | Water main replacement | $2,074,810 |
| Presque Isle Utilities District | Presque Isle | Treatment plant upgrade | $1,600,850 |
| Vinalhaven Water District | Vinalhaven | Water main replacement and extension | $649,430 |
| Yarmouth Water District | North Yarmouth, Yarmouth | Water main replacement | $318,150 |

# Public Water Systems Receiving 2016 DWSRF Construction Funding



DWSRF 2016

# Public Water Systems Non-Construction Funding

## Source Water Protection Grants

| PUBLIC WATER SYSTEM | TOWNS SERVED | GRANT AMOUNT |
|---|---|---|
| York Water District | York | $10,000 |
| Sugarloaf Water Association | Carrabassett Valley | $7,300 |
| Castine Water Department | Castine | $10,000 |
| Kennebec Water District | Fairfield, Oakland, Vassalboro, Waterville | $10,000 |
| Boothbay Region Water District | Boothbay, Boothbay Harbor, East Boothbay | $10,000 |
| Wilton Water Department | Wilton | $2,700 |

## Capacity Development Grants

| PUBLIC WATER SYSTEM | TOWNS SERVED | GRANT AMOUNT |
|---|---|---|
| Auburn Water District | Auburn, Lewiston, Poland | $7,500 |
| Greater Augusta Utility District | Augusta, Manchester | $10,000 |
| Lisbon Water Department | Lisbon, Lisbon Falls | $2,000 |
| Mars Hill Utility District | Mars Hill, Blaine | $15,000 |

## Wellhead Protection Grants

| PUBLIC WATER SYSTEM | TOWNS SERVED | GRANT AMOUNT |
|---|---|---|
| Farmington Village Corporation Water Department | Farmington, Wilton, Temple | $10,000 |
| Indian Point Association | Georgetown | $5,000 |
| Pemaquid Villas Mobile Home Park | Bristol | $5,000 |
| Cornville Regional Charter School | Cornville | $5,000 |
| Limestone Water and Sewer District | Limestone | $5,000 |
| Deer Ridge Mobile Home Cooperative | Augusta | $5,000 |
| Wardtown Park | Freeport | $1,600 |
| River's Bend Mobile Home Park | Caribou | $3,000 |
| Greater Augusta Utility District | Augusta, Manchester | $5,000 |
| Sugarloaf Water Association | Carrabassett Valley | $2,700 |
| Town of Eustis Water Department | Eustis | $5,000 |
| Sunrise Hill Estates | Berwick | $5,000 |
| Town of Portage Lake | Portage Lake | $3,000 |
| Willowbrook Mobile Home Park | Levant | $5,000 |
| South Berwick Water District | South Berwick, Berwick | $3,000 |
| Homestead Estates, LLC | Glenburn | $3,350 |
| Hingham Heights | Glenburn | $3,350 |
| Kingfield Water District | Kingfield | $3,350 |
| New Portland Water District | New Portland | $3,350 |

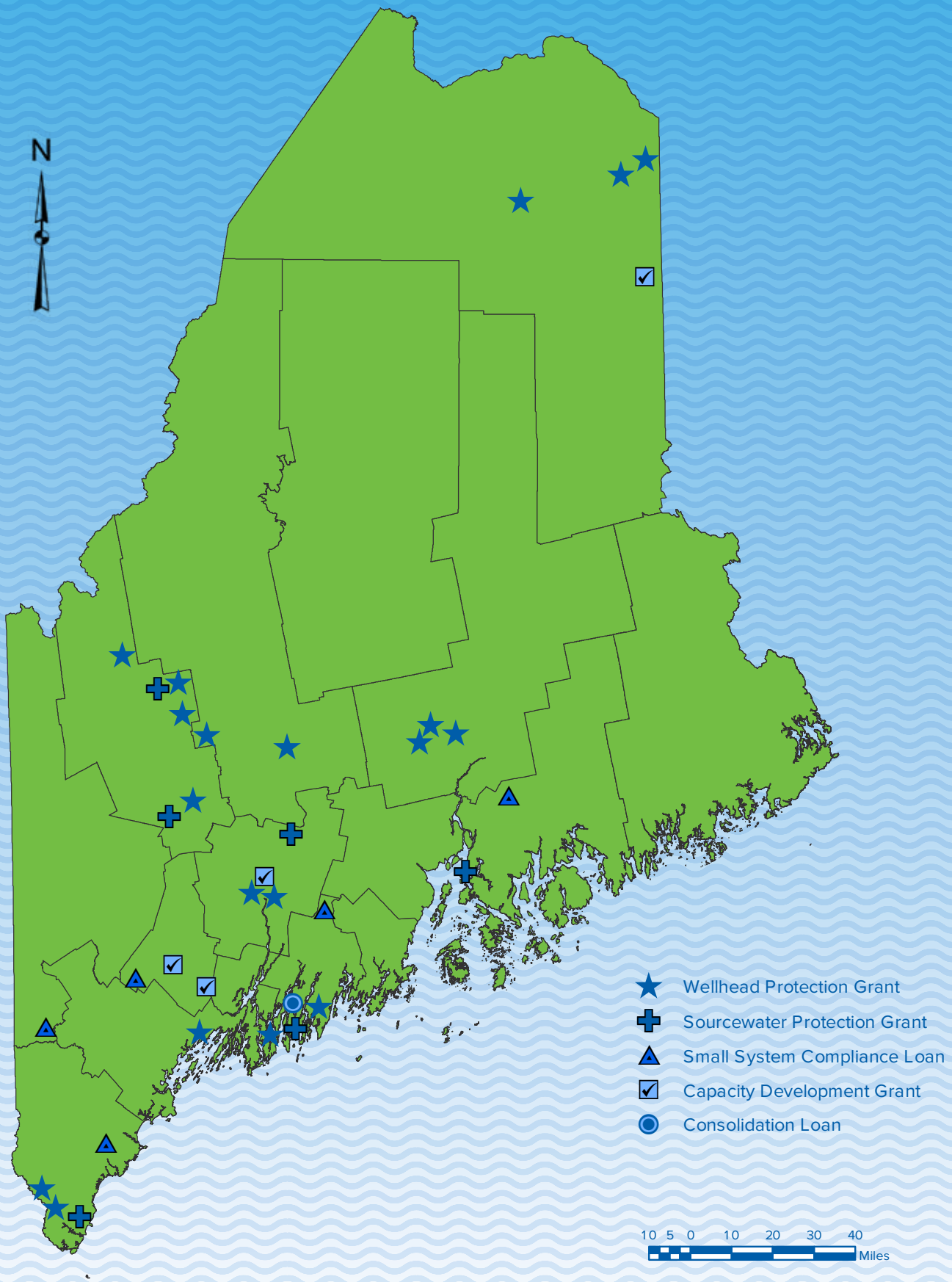
## Very Small System Compliance Loans

| PUBLIC WATER SYSTEM | TOWNS SERVED | COMPLIANCE ISSUE | GRANT AMOUNT |
|---|---|---|---|
| Amy's Circle Mobile Home Park | Hiram | Lead & Copper | $6,978 |
| RSU 12 Somerville Elementary School | Somerville | Lead & Copper | $1,395 |
| Dedham Elementary School | Dedham | Lead & Copper | $50,000 |
| Poland Spring Academy | Poland | Lead & Copper | $3,250 |
| Charter Oaks Mobile Home Village | Arundel | Radon | $9,995 |

## System Consolidation Grants

| PUBLIC WATER SYSTEM | TOWNS SERVED | PUBLIC WATER SYSTEM CONNECTION TO: | REASON FOR CONSOLIDATION | GRANT AMOUNT |
|---|---|---|---|---|
| Southport Central School | Southport | Boothbay Regional Water District | Lead & Copper | $100,000 |

# Public Water Systems Receiving 2016 DWSRF Non-Construction Funding



# Maine ASCE Infrastructure Report Card: The Need for Drinking Water Infrastructure Improvements

In November 2016, the Maine Section of the American Society of Civil Engineers (ASCE) released its third Report Card for Maine's Infrastructure, assigning rankings to the State's 14 infrastructure areas. This report card provides an update and demonstrates progress or decline in each infrastructure area since 2008. The purpose of this state report card is to raise public awareness of the importance of a modern and well-maintained infrastructure.

The grade for municipal drinking water for the State is a C+, which represents no change from the 2012 report, but an improvement from 2008's grade of a C. The report stated, "Significant investments in water systems…has enhanced water quality…However, aging underground transmission lines remain a serious issue for Maine's water utilities with replacement cycles exceeding the 100-year target by 10-50 years… largely due to project funding needs exceeding the available federal and state funding."

The DWSRF plays a critical role in funding needed improvements for many of Maine's public water systems. By providing low-interest loans and grants, the DWSRF enables public water systems to complete infrastructure projects that eliminate immediate and potential threats to public health. Disadvantaged community water systems may receive principal forgiveness (grant) of 20, 40, or 60 percent of the DWSRF loan based on water rates as a percentage of median household income. Since the creation of the DWSRF in 1997, over $250 million has been invested in public water systems across Maine. Without the DWSRF program funds, water systems would need to seek more expensive borrowing alternatives or delay much-needed infrastructure projects essential to public health.

Each year, public water systems' requests to fund projects exceed available money through the DWSRF. Requests typically exceed the available funding by a factor of 2 or 3 times, highlighting the ongoing and continued need for water systems to make improvements to their infrastructure. Indeed, in their 2016 report, ASCE states, "While there has been improvement in treatment, storage, and security issues, approximately $59 million per year is needed over the next 20 years for infrastructure projects – which equates to an annual $22 million shortfall in funding need."

The maintenance and improvement of Maine's infrastructure is vital to our economy, and to the health, safety, and well-being of Maine people. Public water system infrastructure requires ongoing maintenance, continued planning, and adequate funding. In particular, storage, treatment, and distribution facilities require maintenance, replacement, and upgrades to meet current and future drinking water standards. The greatest need for improvement may lie out of sight in underground water distribution lines, many of which are more than 100 years old.

A copy of the full Maine ASCE Infrastructure Report can be found at: http://www.infrastructurereportcard.org/state-item/maine/

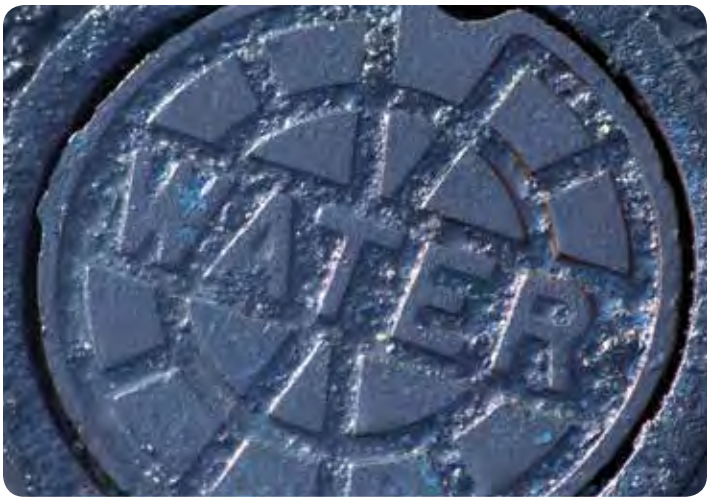

# Future of the DWSRF

DWSRF 2016

The DWSRF will continue to play a critical role in the future through funding assistance for safe drinking water projects for Mainers. Repayments from past DWSRF loans are currently returning about $8.7 million per year to provide loans for new projects. With the "revolving" nature of the DWSRF program, this amount will continue to rise as the DWSRF loan pool continues to grow. In 2017, new DWSRF federal allocations, combined with State match funds and repayment funds, will allow over $21 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. The maintenance and improvement of Maine's infrastructure is vital to our economy, health, safety, security, and to the environment.

Project applications for funding from the 2017 DWSRF Program resulted in a total of 56 DWSRF applications representing over $35 million of drinking water infrastructure improvements. Unfortunately, available DWSRF project funds total approximately $21 million, which will only be able to provide financing assistance for about 60% of the requests.

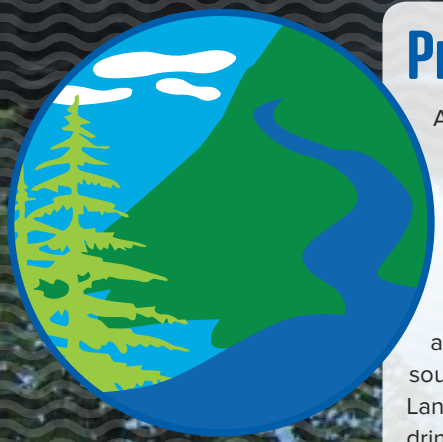
This funding gap of almost $15 million is only a part of the challenge for properly maintaining public water system infrastructure. Aging infrastructure is currently being replaced at an inadequate rate in many water systems. Funding levels below demand levels is only one factor in the inadequate infrastructure replacement rate. Many water systems, in an effort to minimize rate increases on customers, are only replacing the most critical needs at this time. 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.




# From SOURCE to TAP the DWSRF helps Water Systems deliver SAFE WATER

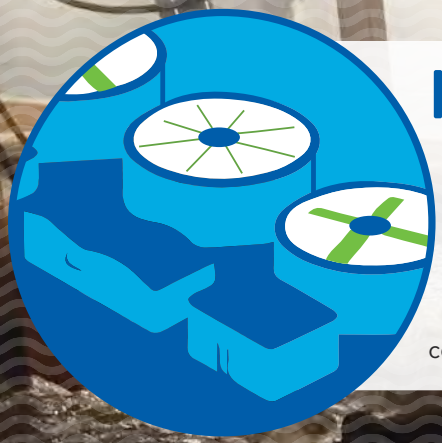
## CORE MESSAGE

**The Drinking Water Program's core message revolves around the notion that water systems should always work to identify, reduce, and eliminate risks and vulnerabilities to their water systems to ensure that their customers are always receiving safe 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.**



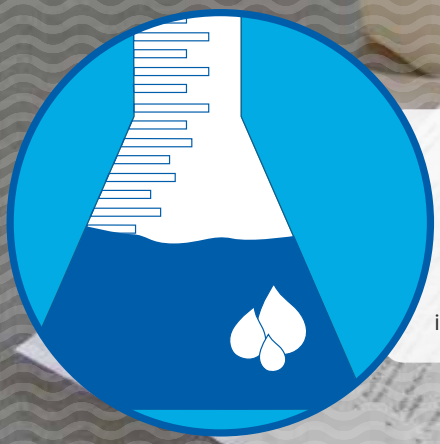
## Protect Your Source

Arguably, the most important part of any public water system is its drinking water source. A high quality, well-protected source can provide cost-effective and safe drinking water. The DWSRF provides funding, not only for the construction and development of new and backup drinking water sources but also for the protection and purchase of land integral to keeping drinking water sources safe from contamination. In 2016, the DWSRF provided funding for 24 projects related to source water protection through the DWP's Wellhead Protection and Source Water Protection Grant programs. The DWSRF funded Land Acquisition Loan program allows public water systems to receive low-interest loans for the purchase of land essential to source protection. Though no public water system took advantage of this resource in 2017, the Land Acquisition Loan program has enabled public water systems to protect nearly 4,317 acres of drinking water source protection areas since 1997.



## 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, contaminants can enter the drinking water through the pipes or result in an inability to maintain the pressure needed 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 to maintain aging water storage infrastructure.



## 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.

## 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 system.

DWSRF

# Construction Projects

2016


## Bangor Water District

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

DWSRF FUNDED AMOUNT: $1,918,770

ENGINEER: Bangor Water District & City of Bangor

CONTRACTOR: Vaughn D. Thibodeau II, Inc.

The Bangor Water District utilized 2016 DWSRF funds for two projects. Both were completed in conjunction with a City of Bangor and Maine Department of Transportation street reconstruction project and involved replacing old, unlined water main. On Broadway Street, 3,350 feet of old main was replaced and on Union Street, 2,200 feet was replaced. Both projects were necessary to maintain chlorine residuals and control lead solubility to ensure compliance with the Safe Drinking Water Act.

## Passamaquoddy Water District

TOWNS SERVED: Eastport, Perry

DWSRF FUNDED AMOUNT: $227,250

ENGINEER: A.E. Hodsdon Engineers

CONTRACTOR: Maleh Mah, Inc. (dba: Morgan Construction)

The Passamaquoddy Water District received funding to replace media in the roughing filter at the District's water treatment plant. The project involved installing an airline manifold to help break up sediment trapped in the media. The roughing filter was in service for 15 years and clogged three times in the past four years. The current method of cleaning the media involves using an excavator to manually turn over the media in the filter. The project sought to reduce possible contamination from excavation, restore a critical piece of equipment used to treat the poor water source, and improve water quality.

# Presque Isle Utilities District

TOWNS SERVED: Presque Isle

DWSRF FUNDED AMOUNT: $1,600,850

ENGINEER: Woodard & Curran

CONTRACTOR: T. Buck Construction, Inc.

The Presque Isle Utilities District's, (PUID) 2016 DWSRF project helped the District install the needed treatment facilities to achieve and maintain compliance with Drinking Water Rules. The District has variability in its source water and needed additional treatment. The project involved adding stronger UV reactors and Ozone for initial disinfection. PIUD is under a compliance agreement with the DWP and this project met the requirements set forth in the agreement.

# Yarmouth Water District

TOWNS SERVED: Yarmouth

DWSRF FUNDED AMOUNT: $318,150

ENGINEER: Wright-Pierce

CONTRACTOR: Crooker Construction, LLC

The Yarmouth Water District was awarded 2016 DWSRF funds to replace approximately 900 feet of old, unlined, undersized cast iron water main on Pleasant Street in Yarmouth. This replacement allowed for an update of an important hydraulic connection in the Yarmouth Water District distribution system and resulted in increased quality, capacity, and improvement in redundancy.

# Portland Water District

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

DWSRF FUNDED AMOUNT: $2,074,810

ENGINEER: Sebago Technics, Inc. (Thornton Heights), Portland Water District (Westbrook St.)

CONTRACTOR: Shaw Brothers Construction, Inc. (Thornton Heights), D&C Construction (Westbrook St.)

The Portland Water District was the recipient of 2016 DWSRF funds for two projects involving the replacement of old water mains in South Portland. The South Portland projects replaced approximately 5,035 feet of cast iron and galvanized water main in Thornton Heights and roughly 3,000 feet on Westbrook Street. The goal was to improve service reliability and update outdated mains. By coordinating this project with the City of South Portland's combined sewage overflow abatement project, the District was able to decrease project cost and disruption.

# Caribou Utilities District

TOWNS SERVED: Caribou

DWSRF FUNDED AMOUNT: $1,835,271

ENGINEER: Caribou Utilities District

CONTRACTOR: Sargent Corporation, Inc.

Caribou Water Utilities had two projects funded by DWSRF in 2016. The first project included replacement of old and undersized pipes on North Main Street. The original unlined cast iron pipe was installed in 1889 and was replaced with 2,300 feet of 12-inch pipe. The second project replaced 4,300 feet of old and undersized pipes on South Main Street to eliminate main breaks and make the line more accessible. Both projects were proposed in an effort to improve water quality and fire flows.


# Calais Water Department

TOWNS SERVED: Calais

DWSRF FUNDED AMOUNT: $687,800

ENGINEER: Olver Associates Inc.

CONTRACTOR: Fundy Contractors Inc.

The Calais Water District received 2016 DWSRF funding to replace 1,700 feet of water line that was originally installed in 1886. This section of water main had repetitive issues, with three leaks occurring in 2015. Replacement abated water quality issues, as the area has a historic buildup of iron debris. The main also supplies several important community services that have been disrupted by issues in the past. The installation of a new 8-inch water main improved both water quality and services to all residents and businesses in the impacted area. The project also replaced services to the right-of-way and updated an older hydrant.

***MANDY OLVER, P.E.**, OLVER ASSOCIATES INC.*

*The Union Street water main line was at the end of its useful life. In the winter of 2015-2016, there were three line breaks and ten previous repairs had been made in the area. Without the DWSRF funding, it would have been difficult for the City to afford this important project.*

# Kennebunk, Kennebunkport, and Wells Water District

TOWNS SERVED: Kennebunk, Kennebunkport, Wells, Ogunquit

DWSRF FUNDED AMOUNT: $1,110,600

ENGINEER: Kennebunk, Kennebunkport, and Wells Water District

CONTRACTOR: Kennebunk, Kennebunkport, and Wells Water District

Kennebunk, Kennebunkport, and Wells Water District's 2016 DWSRF projects involved replacing approximately 5,000 feet of 100-year-old cast iron main on Beach Avenue and Grove Street in Kennebunk and on Shore Road in Ogunquit. The old water main was in poor condition, prone to leaks, and had heavy internal corrosion and the replacement main was designed to remediate these issues. This project aimed at tackling the issues associated with aging water main (leaks and corrosion), as well as improve aesthetic water quality.


# Vinalhaven Water District

TOWNS SERVED: Vinalhaven

DWSRF FUNDED AMOUNT: $649,430

ENGINEER: Woodard & Curran

CONTRACTOR: Jake Barbour Inc.

Vinalhaven Water District utilized 2016 DWSRF funds to replace water mains, valves, hydrants, and services on Mountain Street, Mountain Street Lane, Summer Street, Lakeview Street, and Brighton Avenue. Vinalhaven Water District was also able to extend the water main on Sand Roads to loop the main to Mountain Street. The DWSRF allowed the District to improve water quality and improve isolation capabilities.

# Belfast Water District

TOWNS SERVED: Belfast, Northport, Searsport

DWSRF FUNDED AMOUNT: $749,117

ENGINEER: Dirigo Engineering

CONTRACTOR: Maine Earth

The Belfast Water District's 2016 DWSRF project replaced approximately 2,500 feet of old water main on Front Street and also included installation of new valves, hydrants, and services to the right of way. Front Street is a historic area and has the oldest and smallest water mains. The old cast iron pipe that was replaced was over 100 years old. This project was undertaken to improve water flow to the downtown area and increase capacity. It was completed in conjunction with the City of Belfast Front Street Reconstruction Project.


# Bingham Water District

TOWNS SERVED: Bingham, Moscow

DWSRF FUNDED AMOUNT: $361,075

ENGINEER: Dirigo Engineering

CONTRACTOR: Denis L. Maher Company

2016 DWSRF funds supported the Bingham Water District's project to upgrade an existing well and establish a new well. Prior to the project, the District had only one well. While water quality was excellent, the pump station was old and in need of an overhaul. Given the age of the system, if any components were to fail, it would result in a lengthy service interruption. Since the District had only one well on the system, it could not be shut down for repairs. The development of a new well for the Bingham Water District increases the system's resiliency, reduces vulnerability, and improves overall efficiency. The new well was installed in 2016 and upgrades to the existing well began in the spring of 2017.


# Old Town Water District

TOWNS SERVED: Old Town, Milford

DWSRF FUNDED AMOUNT: $920,312

ENGINEER: CES, Inc.

CONTRACTOR: T. Buck Construction, Inc.

The Old Town Water District was awarded funding from the 2016 DWSRF for a project to replace aging infrastructure in an effort to improve service reliability. The Old Town Water District project to replace aging water main was done in conjunction with a Maine DOT roadway and storm drain project, allowing the project to reduce costs and interrupted road service.

***STEVE LANE, SUPERINTENDENT.**, OLD TOWN WATER DISTRICT*

*DWSRF funding for the Main Road on Route 2 in Milford allowed the District to eliminate approximately 2,200 feet of 6-inch unlined cast iron water main installed in the 1890's. This was a joint road reconstruction project with the MDOT and Town of Milford. Existing services and side street tie-ins were connected to an existing 12-inch water main. The project was undertaken to improve service reliability and fire flows in this area.*

# Boothbay Region Water District

TOWNS SERVED: Boothbay, Boothbay Harbor, East Booth Bay

DWSRF FUNDED AMOUNT: $242,400

ENGINEER: Dirigo Engineering

CONTRACTOR: Hagar Enterprises, Inc.

Boothbay Region Water District's 2016 DWSRF project involved installing approximately 1,250 feet of new 8-inch HDPE water main on Cape Newagen Road in Southport. Additionally, two new hydrants, isolation valves, and new year-round water service connections were installed. The DWSRF funded project increased flow to Southport, provided redundancy to the Townsend Gut waterway crossing, and completed a loop of buried year round water mains.


DWSRF

# Projects from Previous Years

2016




## Bangor Water District

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

DWSRF FUNDED AMOUNT: $2,681,602

ENGINEER: Black & Veatch

CONTRACTOR: T. Buck Construction Inc.

The Bangor Water District completed its 2015 DWSRF project to upgrade and refurbish its Johnston Pump Station in 2016. Much of the pump station equipment was outdated and nearing the end of its useful life. The upgrade allowed the District to meet its project goals of improving water quality issues and energy savings.

## Old Town Water District

TOWNS SERVED: Old Town, Milford

DWSRF FUNDED AMOUNT: $1,940,412

ENGINEER: CES, Inc.

CONTRACTOR: Vaughn D. Thibodeau II, Inc.

The Old Town Water District received DWSRF funds in 2015 for a project to replace aging water main. The project was coordinated with the Town of Milford's roadway and utility improvement project which allowed the District to abate some costs associated with the project. When finished in 2016, the project had completed an important water main loop between Call Road and Pine Street, increasing efficiency for the District.

## Passamaquoddy Water District

TOWNS SERVED: Eastport, Perry

DWSRF FUNDED AMOUNT: $582,472

ENGINEER: A.E. Hodson Consulting Engineers

CONTRACTOR: Maleh-Mah Inc. (DBA Morgan Construction)

The Passamaquoddy Water District was awarded 2015 DWSRF funds to replace 703 non-compliant meters within the water system. The project was an effort to comply with the 2011 'Reduction of Lead in Drinking Water Act'. The project met the goal of reducing any potential harm from lead related health risks.




## Presque Isle

TOWNS SERVED: Presque Isle

DWSRF FUNDED AMOUNT: $1,350,000

ENGINEER: Woodard & Curran, Inc.

CONTRACTOR: Ed Pelletier & Sons

In 2015, the Presque Isle Utilities District was funded for a project to provide a redundant water main crossing of the Aroostook River between the Reach Road Pump Station and the distribution system. The goal of the project was to ensure that the District was able to provide a reliable supply of drinking water and fire protection to the City in the event of a failure of the existing river crossing. This improvement decreased vulnerability for the District and made the system more resilient to potential problems.

## Stonington Water Company

TOWNS SERVED: Stonington

DWSRF FUNDED AMOUNT: $250,480

ENGINEER: Olver Associates Inc.

CONTRACTOR: Ranger Contracting Inc.

The Stonington Water Company received DWSRF funds in 2015 to replace approximately 500 feet of galvanized and cast iron piping with ductile iron piping at a depth allowing protection from freezing. The District was also able to update antiquated service piping with copper lines along Seabreeze Avenue. The DWSRF project funds allowed the District to meet its goals to install properly sized piping, remedy leaking curb stops, access unavailable valves, and ultimately improve the percentage of unaccountable water.

## Washburn Water and Sewer District

TOWNS SERVED: Washburn

DWSRF FUNDED AMOUNT: $252,025

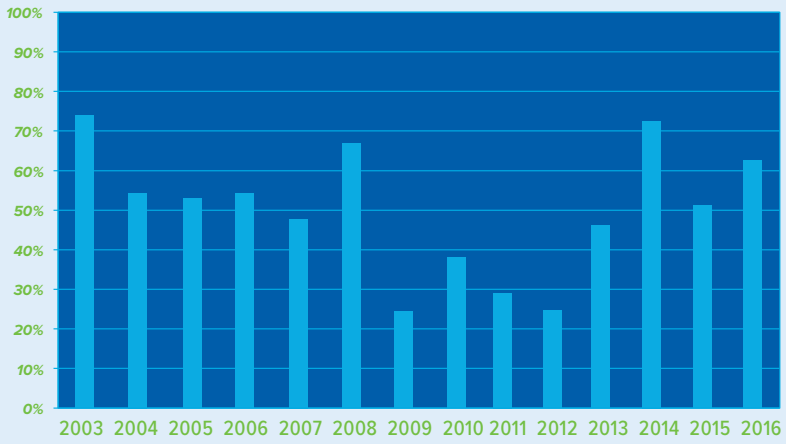
ENGINEER: Olver Associates

CONTRACTOR: Trombley Construction Inc.

In 2016, Washburn Water and Sewer District completed its DWSRF project to install a new well in an effort to increase redundancy, vulnerability, and resiliency. Prior to the project, the district relied on a nearly 40-year-old well with a diminishing pumping rate. The new well has allowed the District to double its capacity and continue to supply safe drinking water to its customers.

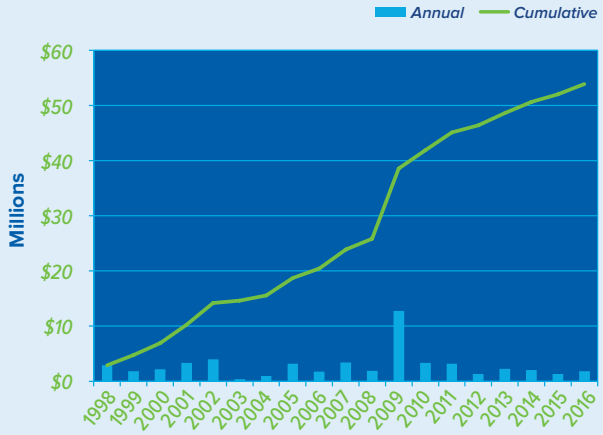
# Drinking Water State Revolving Fund Performance Measures

## Percentage of Project Applications Funded



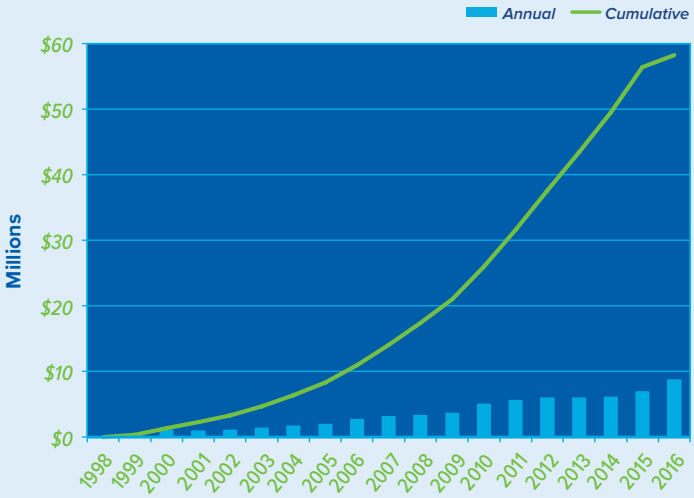

Public water system request to fund projects continue to exceed available money through the DWSRF, highlighting the ongoing and continued need for water systems to make improvements to their infrastructure.

## DWSRF Loan Forgiveness



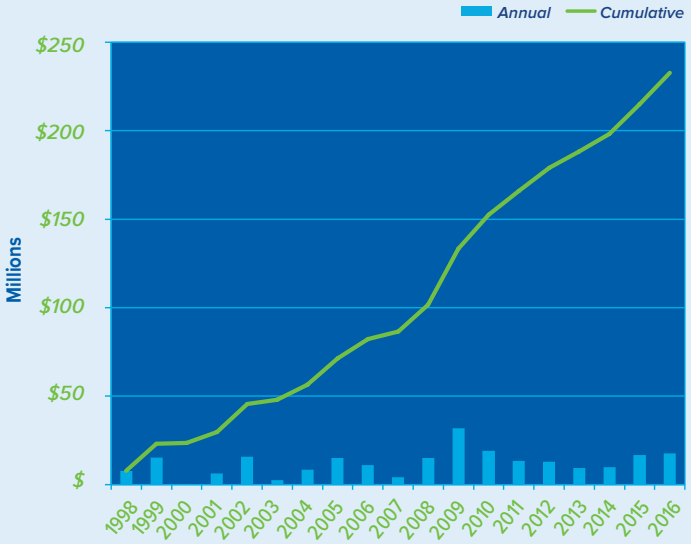

Economically disadvantaged water systems may have a portion of the loan principal forgiven if a water system's existing rates exceed a "water rate goal" based on the Median Household Income of the community. The year 2009 is an outlier because of the increased funding through the American Recovery and Reinvestment Act and the requirement to provide at least 50 percent of the federal grant in loan subsidies (principal forgiveness).

## DWSRF Repayment Amounts




Since 1997, the DWSRF has provided over $230 million in funding to over 360 infrastructure improvement projects at Maine's public water systems.

## DWSRF Loan Commitments




The DWSRF annual repayment stream is currently about $8.7 million per year and will continue to increase each year.

DWSRF 2016

# 2016 DWSRF Non-Construction Projects

## Capacity Development Grants

Capacity Development Grants provide assistance to public water systems for 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 | PROPOSED USE OF GRANT FUNDS | GRANT AMOUNT |
|---|---|---|
| Auburn Water District | Corrosion Control Study | $7,500 |
| Greater Augusta Utility District | Master Plan Update | $10,000 |
| Lisbon Water Department | Lead and Copper Leaching Study | $2,000 |
| Mars Hill Utility District | Groundwater Study for Disinfection by-products Reduction | $15,000 |

# Very Small System Compliance Loans

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 percent principal forgiveness (up to $50,000) for water treatment improvements required to achieve compliance with a current or 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, 29 public water systems have received funding and resolved compliance issues. Total project expenses of $496,130 have improved water quality for 5,444 users, with an average cost per user of $91. Eight water treatment systems were installed for removal of arsenic, 14 for radon/uranium removal, and seven for corrosion control to address lead and copper compliance.

| PUBLIC WATER SYSTEM | TOWNS SERVED | COMPLIANCE ISSUE | GRANT AMOUNT |
|---|---|---|---|
| Amy's Circle Mobile Home Park | Hiram | Lead and Copper | $6,978 |
| RSU 12 Somerville Elementary School | Somerville | Lead and Copper | $1,395 |
| Dedham Elementary School | Dedham | Lead and Copper | $50,000 |
| Poland Spring Academy | Poland | Lead and Copper | $3,250 |
| Charter Oak Mobile Home Village | Arundel | Radon | $9,995 |

# System Consolidation Grants

Water System Consolidation Grants provide partial funding to water systems for the purpose of joining to another water system. 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 must 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 the water system consolidation for not-for-profit facilities, up to a maximum of a $100,000 reimbursement.

| PUBLIC WATER SYSTEM | TOWNS SERVED | PUBLIC WATER SYSTEM CONNECTION TO: | REASON FOR CONSOLIDATION | GRANT AMOUNT |
|---|---|---|---|---|
| Southport Central School | Southport | Boothbay Regional Water District | Lead and Copper | $100,000 |

# 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 clearly reduce the likelihood of contamination occurring in the source water protection area by existing or future activities. Grants are awarded up to $5,000 per project. Projects that demonstrate a significant commitment to ongoing wellhead protection are considered for a higher grant award amount of up to $10,000.

Examples of projects eligible for Wellhead Protection Grants include but are not limited to the following:

- Assistance in the replacement of oil storage tanks in the wellhead protection area;
- Subsidizing the removal of septic systems from the wellhead protection area;
- Establishing or enabling a source monitoring program;
- Removing hazardous chemicals from the wellhead protection area;
- Developing or implementing drinking water education programs;
- Establishing local protective ordinances or legal agreements in the wellhead protection area; and
- Other types of projects that aim to reduce contamination of the wellhead protection area.

| PUBLIC WATER SYSTEM | PROJECT DESCRIPTION | GRANT AMOUNT |
|---|---|---|
| Farmington Village Corporation Water Department | Regional emergency response planning exercises focused on threats to the wellfields identified in Wellhead Protection Plan. | $10,000 |
| Indian Point Association | Delineate wellhead protection area, develop wellhead protection plan, and implement drinking water education program. | $5,000 |
| Pemaquid Villas Mobile Home Park | Install drinking water protection signs, clean up area around well, and replace oil fired furnaces with propane furnaces. | $5,000 |
| Cornville Regional Charter School | Develop groundwater education module to be incorporated into curriculum. | $5,000 |
| Limestone Water and Sewer District | Update and improve wellhead protection ordinance. | $5,000 |
| Deer Ridge Mobile Home Cooperative | Install protective bollards around wellhead. | $5,000 |
| Wardtown Park | Install protective bollards around wellhead and install drinking water protection area signs. | $1,600 |
| River's Bend Mobile Home Park | Install pitless adapter, raise well casing above grade, and install sanitary seal wellcap. | $3,000 |
| Greater Augusta Utility District | Install fencing and access road gate. | $5,000 |
| Sugarloaf Water Association | Replace surveillance cameras at multiple well sites. | $2,700 |
| Town of Eustis Water Department | Install fencing around wellhead and security cameras. | $5,000 |
| Sunrise Hill Estates | Convert oil-fired furnaces to propane furnaces. | $5,000 |
| Town of Portage Lake | Remove old metal subsurface wastewater septic tank in the wellhead protection area. | $3,000 |
| Willowbrook Mobile Home Park | Regrade mobile home park access road to reduce salt water contamination. | $5,000 |
| South Berwick Water District | Purchase video security system to monitor wells and reservoir. | $3,000 |
| Homestead Estates, LLC | Convert oil-fired furnaces to propane furnaces. | $3,350 |
| Hingham Heights | Convert oil-fired furnaces to propane furnaces. | $3,350 |
| Kingfield Water District | Install surveillance cameras to monitor wells. | $3,350 |

# Source Water Protection Grants

The Source Water Protection Grant Program awards grants to community and non-profi, 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 clearly reduce the likelihood of contamination occurring in the source water protection area from existing or future activities. Grants are awarded up to $5,000 per project. Projects that demonstrate a significant commitment to ongoing source water protection are considered for a higher grant award amount of up to $10,000.

| PUBLIC WATER SYSTEM | PROJECT DESCRIPTION | GRANT AMOUNT |
|---|---|---|
| York Water District | Continuation of multi-year management trail reconstruction project in the Chase's Pond watershed. | $10,000 |
| Sugarloaf Water Association | Create a formal watershed protection plan. | $7,300 |
| Castine Water Department | Repair/replace fence surrounding source. | $10,000 |
| Kennebec Water District | Conduct a gravel road condition assessment for all gravel roads within the China Lake watershed and develop road management plans for the five worst roads. | $10,000 |
| Boothbay Region Water District | Conduct road and stormwater management and reconstruction work to address critical non-point source erosion sites on Adams Pond Road. | $10,000 |
| Wilton Water Department | Conduct watershed survey for Varnum Pond, Pease Pond, and Wilson Lake. | $2,700 |

# 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.”

Although there were no Land Acquisitions Loans secured by water systems in 2016, the Drinking Water Program continues to make funding available through the loan program in the event that a water system is presented with the opportunity to purchase land integral to their source water protection.

Maine Center for Disease Control and Prevention

An Office of the Department of Health and Human Services

Paul R. LePage, Governor  Ricker Hamilton, Acting Commissioner

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Maine CDC Drinking Water Program
11 State House Station
286 Water St., 3rd Floor
Augusta, ME 04333-0011
Phone: (207)-287-2070
Emergency Phone: (207)-557-4214
Fax: (207)-287-4172
www.medwp.com


SRF State Revolving Loan Fund

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