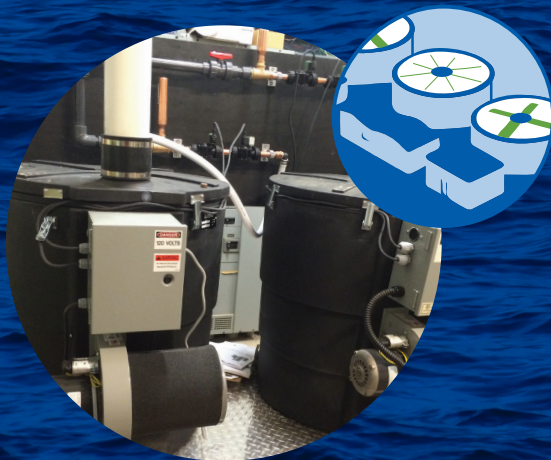


# 2014

## Working Together for Safe Drinking Water

### DRINKING WATER CONSTRUCTION PROJECT REPORT

with funding from the Drinking  
Water State Revolving Fund



Maine Center for Disease  
Control and Prevention

An Office of the  
Department of Health and Human Services

Paul R. LePage, Governor

Mary C. Mayhew, Commissioner



# 2014 DWSRF Introduction



Dear Reader,

Thank you for taking the time to read our annual Drinking Water State Revolving Fund (DWSRF) report. The highlight of 2014 was reaching the \$200 million funding milestone. With the investment of \$26 million in “state match” funds from the State of Maine, the DWSRF Program has been able to provide more than \$200 million in public water system infrastructure improvement projects since 1997.

In 2014, DWSRF funding supported 26 construction projects at 19 different public water systems totaling more than \$12 million. Water systems from Alfred in the south and Caribou in the north benefited from the affordable financing of the DWSRF to improve public health protection in their communities.

This annual report is produced to highlight the importance and value of the DWSRF to public water systems in Maine. The ability of municipal public water systems to provide an adequate supply of safe drinking water at a reasonable cost is essential to a strong 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 program possible. The staff at the Department of Health and Human Services Drinking Water Program (DWP) and the Maine Municipal Bond Bank (MMBB) continue to perform exceptionally in their responsibilities. Public water systems, consultants and contractors all contribute to the overall success. 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.

A handwritten signature in black ink that reads "Roger L. Crouse". The signature is fluid and cursive, with the first name "Roger" being more prominent.

Director, Maine CDC Drinking Water Program



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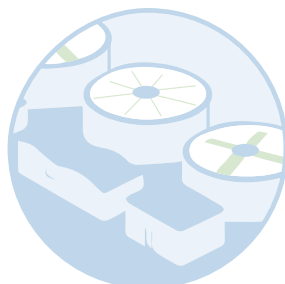
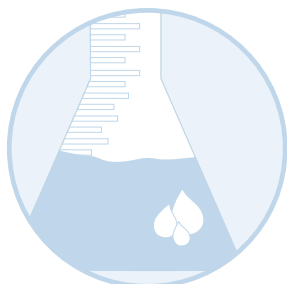
The 1996 Amendments to the Safe Drinking Water Act (SDWA) included allocations for the DWSRF. The DWSRF program is a State-operated program to provide loans and other financial assistance for drinking water improvement projects. The SDWA requires that states provide 20 percent matching funds to federal dollars, in order to capitalize the DWSRF program. This allocation means that every one dollar invested by the State of Maine secures five federal dollars. For 2014, Maine invested \$1,769,000 to access \$8,845,000 in federal funding for Maine drinking water improvement projects.

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 are available as low interest loans. Disadvantaged Community Water Systems may receive further assistance through principal forgiveness grants.

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 Department of Health and Human Services (DHHS) and the Maine Municipal Bond Bank (MMBB) administer the DWSRF together. The Drinking Water Program, as the lead administrator, 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 \$200 million to public water systems through low interest loans and grants.



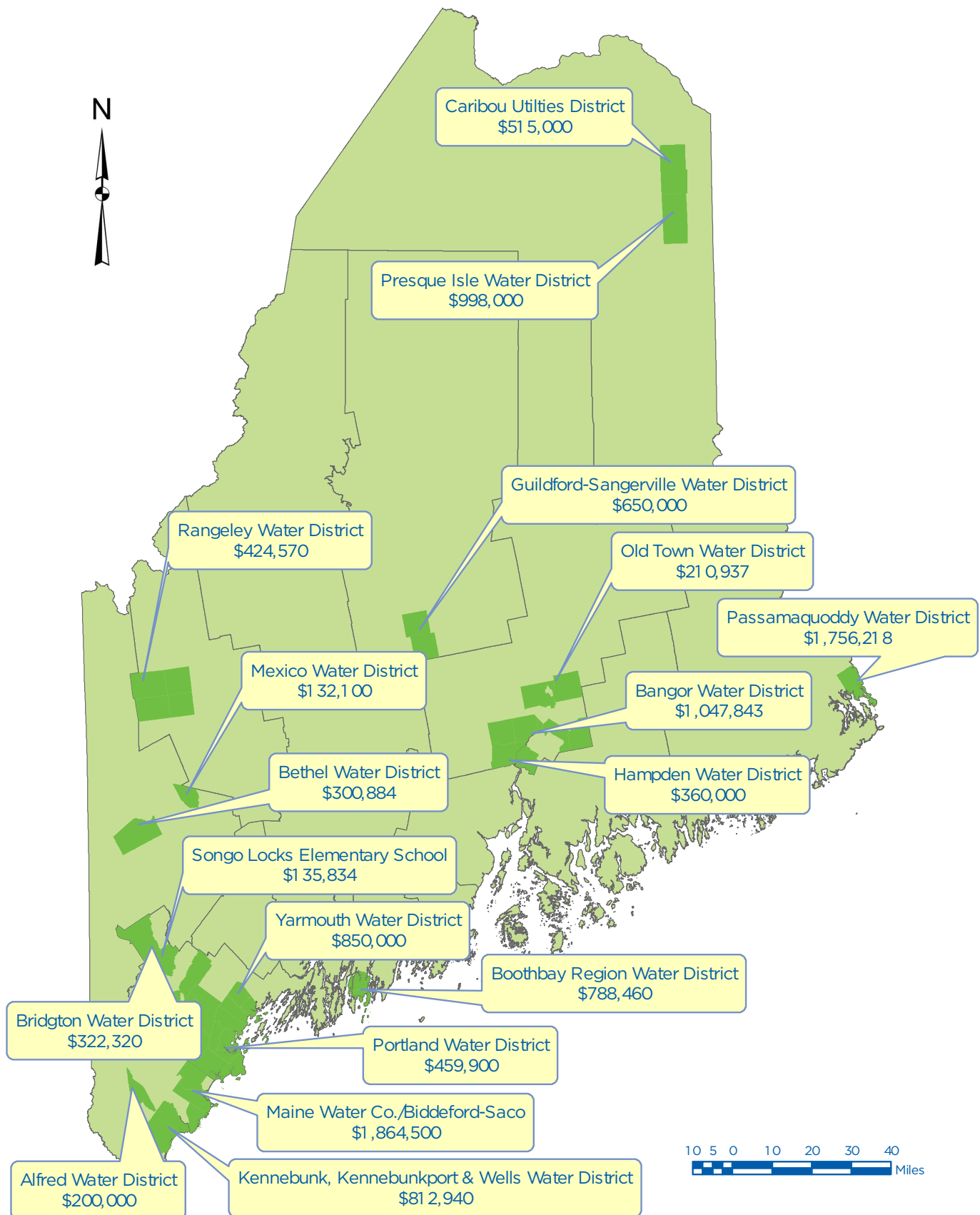


# 2014 DWSRF Construction Projects At A Glance

WATER SYSTEM	TOWNS SERVED	SHORT DESCRIPTION	2014 DWSRF FUNDED AMOUNT
Alfred Water District	Alfred	Water Main Replacement	\$200,000
Bangor Water District	Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie	Water Main Replacement	\$1,047,843
Bethel Water District	Bethel	Meter Replacement	\$300,884
Boothbay Region Water District	Boothbay, Boothbay Harbor, East Boothbay	Elimination of Water Line Dead Ends and Standpipe Tank Painting	\$788,460
Bridgton Water District	Bridgton	Exploration for Development of a New Source	\$322,320
Caribou Utilities District	Caribou	Storage Tank Re-Painting and Water Main Replacement	\$515,000
Guilford-Sangerville Water District	Guilford, Sangerville	Water Main Replacement	\$650,000
Hampden Water District	Hampden	Construction of Emergency Backup Source	\$360,000
Kennebunk, Kennebunkport and Wells Water District	Kennebunk, Kennebunkport, Wells	Water Main Replacement	\$812,940
Maine Water Company-Biddeford/Saco Division	Biddeford, Saco, Old Orchard Beach, Scarborough	Pump Station and Treatment Plant Upgrades	\$1,864,500
Mexico Water District	Mexico	Water Main Replacement	\$132,100
Old Town Water District	Old Town, Milford	Water Main Replacement	\$210,937
Passamaquoddy Water District	Eastport, Perry	Water Main Replacement	\$1,756,218
Portland Water District	Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham	Water Main Replacement	\$459,900
Presque Isle Water District	Presque Isle	Water Main Replacement and Pump Station Upgrades	\$998,000
Rangeley Water District	Rangeley, Dallas PLT, Rangeley PLT, Sandy River PLT	Water Main Replacement	\$424,570
Songo Locks Elementary	Naples	Treatment, Pumping and Storage Improvement	\$135,834
Yarmouth Water District	Yarmouth, North Yarmouth	Water Main Rehabilitation	\$850,000



# Public Water Systems Receiving 2014 DWSRF Construction Funding





# 2014 DWSRF

## Public Water Systems Non-Construction Funding

### Capacity Development Grants

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Waterboro Water District	Waterboro	\$5,000
Bridgton Water District	Bridgton	\$12,500
Lisbon Water Department	Lisbon	\$5,000
Clinton Water District	Clinton	\$3,000
East Vassalboro Water Company	East Vassalboro	\$2,000
Exeter Water Department	Exeter	\$5,000
Town & Country Apartments	Presque Isle	\$350
Cedar Haven Mobile Home Park	Holden	\$350
Pine Cone Mobile Home Court #1	Caribou	\$350
Fairground Apartments	Orrington	\$350
Greenwood Garden Apartments	Holden	\$350
Havasu Pines Mobile Home Park #1	Orono	\$350
Havasu Pines Mobile Home Park	Orono	\$350
Holden Square Apartments	Holden	\$350
Strictly Mobile Homes Inc.	Orono	\$350
R&K Mobile Home Park	Brewer	\$350
Caribou Trailer Park #2	Caribou	\$350
Riverside Court	Caribou	\$350
Lazy Acres Mobile Home Park	Caribou	\$350
Delwood Trailer Park	Caribou	\$350
Caribou Stream Mobile Home Park	Caribou	\$350
Rivers Bend Mobile Home Park	Caribou	\$350
Sunny Slope Trailer Park	Caribou	\$350
Golden Gate Trailer Park	Presque Isle	\$350
Newport Water District	Newport	\$9,750
Loring Development Authority	Limestone	\$10,000
Hampden Water District	Hampden	\$2,579
Auburn Water District	Lewiston, Auburn, Poland	\$15,000
Washburn Water & Sewer District	Washburn	\$7,500
Dexter Utility District	Dexter	\$5,000
Guilford-Sangerville Water District	Abbot, Guilford, Parkman, Sangerville	\$5,000
Orono-Veazie Water District	Orono, Veazie	\$15,000
Van Buren Water District	Van Buren	\$5,000

### Wellhead Protection Grants

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Alfred Water District	Alfred	\$5,000
Caribou Utilities District	Caribou	\$5,000
Cornville Regional Charter School	Cornville	\$5,000
Grandeur Mobile Home Estates	Carmel	\$5,000
Pine Cone Mobile Home Court #1	Holden	\$5,000
Rivers Bend Mobile Home Park	Caribou	\$5,000
Sabattus Sanitary District	Sabattus	\$10,000
Sanford Water District	Sanford	\$5,000
South Berwick Water District	South Berwick	\$3,000
South Slope Estates	Carmel	\$5,000
Springbrook Mobile Home Park	Wales	\$4,000
Town of Portage Lake	Portage Lake	\$2,500
Winter Harbor Water District	Winter Harbor	\$5,000
Yarmouth Water District	Yarmouth	\$10,000

### Source Water Protection Grants

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Boothbay Region Water District	Boothbay	\$5,000
Kennebec Water District	Fairfield, Oakland, Vassalboro, Waterville	\$10,000
York Water District	York	\$10,000

### Very Small System Compliance Loans

PUBLIC WATER SYSTEM	TOWNS SERVED	COMPLIANCE ISSUE	GRANT AMOUNT
Living Waters Christian School & Daycare	Buxton	Elevated arsenic levels	\$8,600
Damariscotta Montessori School	Nobleboro	Elevated radon levels	\$5,200

### Land Acquisition Loans

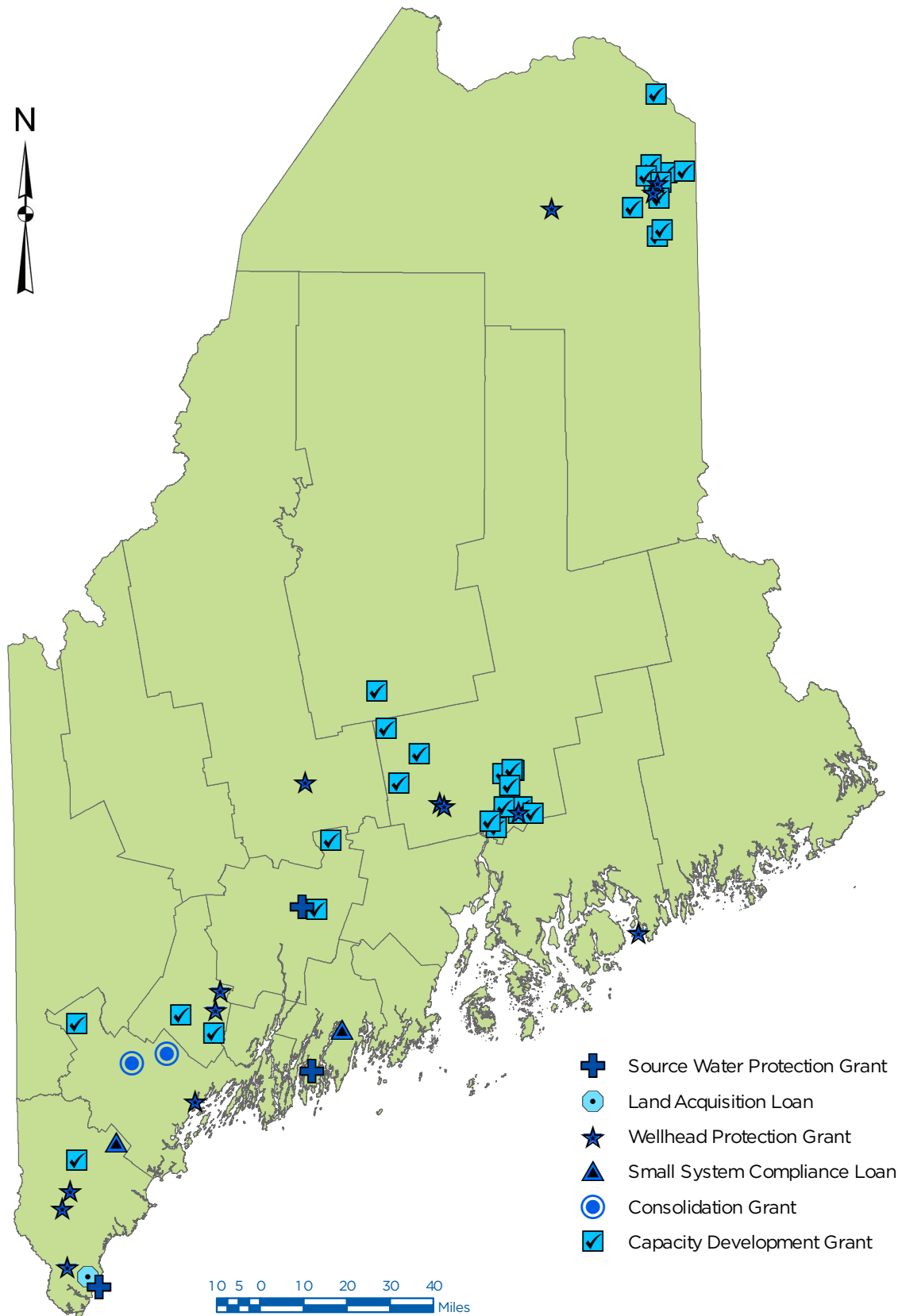
PUBLIC WATER SYSTEM	TOWNS SERVED	ACRES PURCHASED AND PROTECTED	LOAN AMOUNT
York Water District	York	2.23	\$244,110

### System Consolidation Grants

PUBLIC WATER SYSTEM	TOWNS SERVED	PUBLIC WATER SYSTEM CONNECTING TO:	REASON FOR CONSOLIDATION	GRANT AMOUNT
Café Sebago	Raymond	Portland Water District	Chronic bacterial contamination	\$15,000
RSU 15 Memorial School (428)	New Gloucester	New Gloucester Water District	Uranium compliance issues	\$10,000



# Public Water Systems Receiving 2014 DWSRF Non-Construction Funding

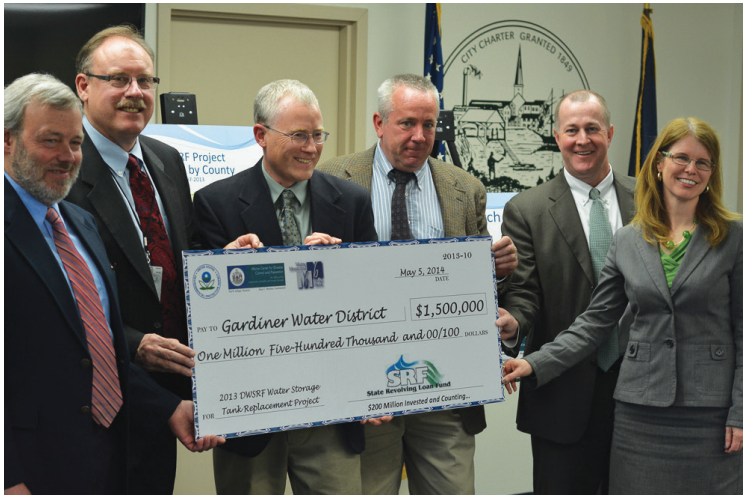


# Celebration Held for \$200 Million DWSRF Milestone

A celebration to mark the milestone of \$200 million dollars invested through the Drinking Water State Revolving Fund (DWSRF) was held on May 5, 2014 in Gardiner, coinciding with the 2014 National Drinking Water Week. Gardiner Water District's 2013 DWSRF project to replace its aging and undersized water storage tank pushed the total dollars loaned through the DWSRF since 1997 over the \$200 million mark.

On hand to celebrate this milestone were Curt Spaulding, Administrator for the New England Region of the Environmental Protection Agency, Maine Department of Health and Human Services Commissioner Mary Mayhew, former Maine CDC Director Dr. Sheila Pinette, Maine Department of Environmental Protection Commissioner Patricia Aho, legislators, local representatives from Maine's congressional delegation, local water district representatives and representatives from the Maine CDC's Drinking Water Program.

Maine received the first DWSRF grant award from the U.S. Environmental Protection Agency in December 1997. The first loan was made to Madawaska Water District in March 1998. Since that first project, the DWSRF has helped water systems find new sources of water, install and upgrade treatment processes, replace many miles of aging and deteriorating water pipe, increase or replace storage, as well as many other projects to improve the safety and reliability of Maine's public water systems.



Pictured at the celebration from left to right: Jeffrey Kobrock, Gardiner Water District Board Chair; Curt Spaulding, EPA Region 1 Administrator; Roger Crouse, Drinking Water Program Director; Paul Gray, Gardiner Water District Superintendent; Mike Goodwin, Executive Director Maine Municipal Bond Bank; Mary Mayhew, Maine DHHS Commissioner

# Future of the DWSRF

The future of the DWSRF continues to look bright. At this time, there are no indications from the U. S. Environmental Protection Agency (EPA) or Congress that the federal funding for the DWSRF will be changing significantly up or down in the near future.

The annual repayment levels from existing DWSRF loans continue to increase. Current repayment levels are at approximately \$6.3 million per year. We anticipate the repayment stream to approach \$10 million per year by 2017, (the 20th anniversary of the DWSRF Program).


The need for DWSRF funding assistance is also increasing with more water systems attempting to replace aging drinking water infrastructure. In 2014 Unmet Need (projects that could not be funded) exceeded \$12 Million.

The necessary 20 percent state match has always had some uncertainties and challenges. However, starting in June 2015, some of that challenge and uncertainty will go away. The state match will be funded by revenue from the State's wholesale liquor contract starting in June of 2015. This funding stream eliminates the need for the historic practice of annual voter approved General Obligation Bond referenda. This change does not eliminate risks. Future legislatures could choose to use the liquor contract funding for other purposes.

As in the past, the Drinking Water Program and Maine Municipal Bond Bank staff will continue to improve and modify operational policies to meet the evolving needs and expectations of public water systems, Congress and EPA.



# 40



## Years of Protecting Drinking Water

2014 marked the 40th anniversary of the Federal Safe Drinking Water Act (SDWA). The SDWA was passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supplies. Amended in 1986 and 1996, the Act authorizes the Environmental Protection Agency (EPA) to set health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. EPA, the Maine Drinking Water Program and public water systems then work together to make sure these standards are met.

Thanks to the SDWA, Maine residents and visitors can rely on Maine's nearly 1,900 public drinking water systems for the delivery of safe, reliable drinking water to their homes, businesses, schools and communities every day. It is estimated that approximately half of Maine's population is served public drinking water at their homes and nearly everyone living in Maine or visiting here relies on public drinking water supplies at some point in their daily lives through work, school, restaurants, hotels and other places of business.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing

source water protection, operator training, funding for water system improvements and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

The Drinking Water State Revolving Fund (DWSRF) program was formed as part of the 1996 amendments to the Safe Drinking Water Act. The program is intended to assist states and public water systems to achieve national goals for public health protection through administering funds to states for water infrastructure improvements. Every four years, EPA estimates the capital infrastructure need and then allots funding to the states. States use the funds to finance infrastructure projects and assist public water systems.

Aging and outdated water mains, storage tanks and treatment systems threaten the availability of safe and secure drinking water in Maine. The DWSRF is a key part of our work to provide public water systems with the funding they need to keep safe drinking water flowing to their customers. Forty years later, the Safe Drinking Water Act continues to play a key role in ensuring the delivery of safe and reliable drinking water to people in Maine and throughout our nation.



# From Source to Tap the DWSRF

## Helps Water Systems Deliver Safe Water

### CORE MESSAGE



## Protect Your Source

### Source Protection



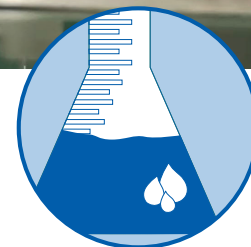
Arguably the most important part of any public water system is their drinking water source. A high quality, well protected source can provide cost-effective and safe drinking water. The DWSRF provides funding not only for the construction and development of new and back-up drinking water sources, but also for the purchase of land integral to protecting a drinking water source from contamination. In 2014, the DWSRF provided funding through the Land Acquisition Loan Program for York Water District to purchase land within their watershed to protect Chase's Pond, their primary source of drinking water. Since 1997, the DWSRF has provided funding for over 60 projects enabling water systems to establish new or backup sources of water and has enabled the protection of over 190 acres of drinking water source protection areas through the issuance of 18 Land Acquisition Loans.



Welch's Pond, located within Chase's Pond watershed, the drinking water source for York Water District



## Take Your Samples



### Water Quality Monitoring (Sampling)

Drinking water sampling is not only a requirement of all public water systems, but it also provides assurance that the water is safe to drink. Sampling on a regular schedule provides evidence the water system is performing as designed. Sampling also helps to identify problems within the water system. 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.



Installation of a new well at Solon Water District

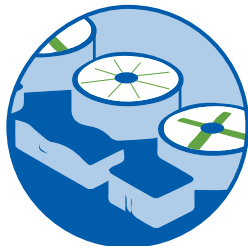


The Drinking Water Program has adopted a “Core Message” that revolves around the notion that water systems should always work to identify, reduce and eliminate risks and vulnerabilities to their water systems to ensure that their customers are always receiving safe water. The Drinking Water State Revolving Fund plays an integral part in carrying out the Core Message, as it enables public water systems to make improvements to their water system in each of these four fundamental areas. As a result, investments made by public water systems through the DWSRF are investments in their continued ability to provide safe drinking water.



## Maintain Your Treatment

### Drinking Water 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.

In 2014, Maine Water Company’s Biddeford/Saco Division was able to complete extensive upgrades to their water treatment plant. The improvements helped to bring the treatment facility into compliance, meet health and safety standards, ensure the structural stability of the facilities and improve process chemistry and control. Since its inception, the DWSRF has provided funding for nearly 90 projects to improve or upgrade treatment processes at public water systems throughout Maine.

To help smaller water systems with limited financial capacity resolve serious drinking water quality issues, the Very Small System Compliance Loan Program was developed with funds from the DWSRF. Since the program’s inception in 2010, several projects have been completed to resolve issues with arsenic, radon, uranium and lead and copper.



Ultraviolet (UV) disinfection system at Auburn Water District

## Inspect Your Pipes and Tanks

### Maintaining Pipes and Storage Tanks

Storage tanks and a network of piping (also known as a distribution system) are an integral 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 and tanks or could result in an inability to maintain the pressure needed to deliver water to each tap.

An increase in the number of funding requests to the DWSRF for storage tank and water main rehabilitation or replacement projects has been observed. This trend is expected to continue, as public water systems continue efforts with maintaining aging water storage infrastructure. In 2014 alone, 17 projects were funded to upgrade or maintain drinking water distribution systems and storage facilities, representing only a small fraction of the continued and ongoing need from water systems throughout Maine.



Repair on the Mount Pisgah Standpipe in preparation for painting at Boothbay Region Water District



Water main replacement at Kennebunk, Kennebunkport and Wells Water District.



# Drinking Water State Revolving Fund Performance Measures: 1998-2014

Figure 1.

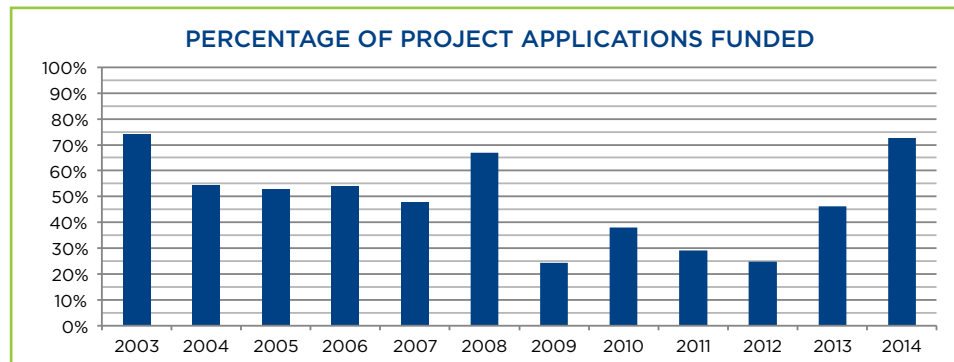


Figure 1. Public water system requests to fund projects continue to exceed available money through the DWSRF, highlighting the ongoing and continued need for water systems to make improvements to their infrastructure.

Figure 2.

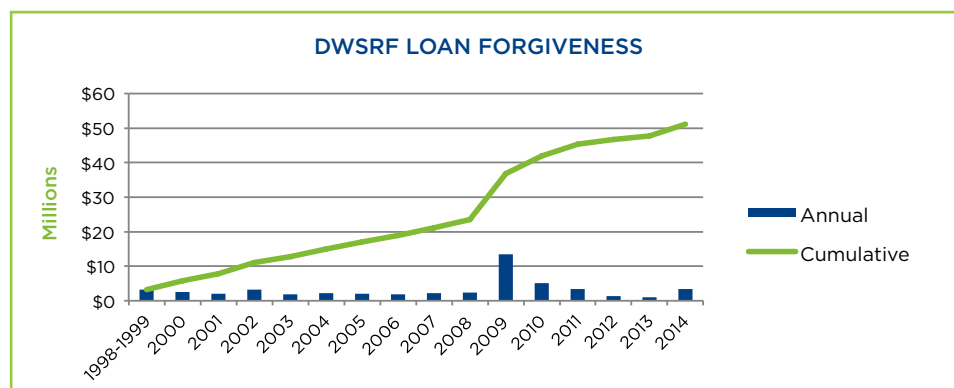


Figure 2. Economically disadvantaged water systems may have a portion of the loan principal forgiven if the water system's existing water rates exceed a "water rate goal" which is based upon the Median Household Income of the community. In 2009, because of the requirements of American Recovery and Reinvestment Act, each project received at least 30 percent "principal forgiveness."

Figure 3.

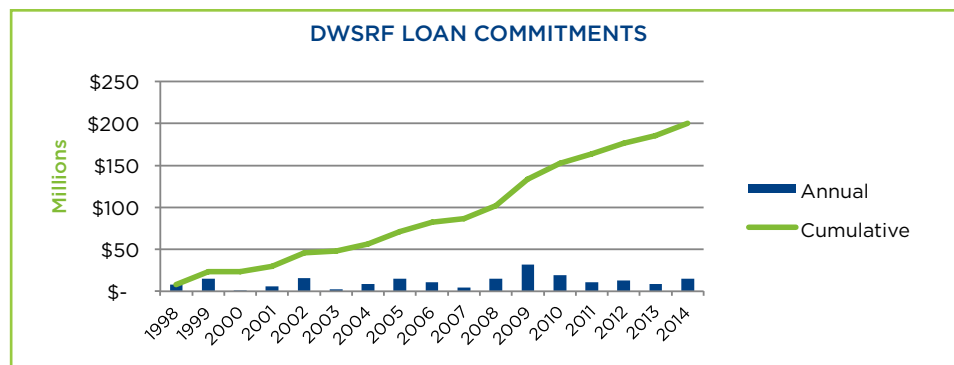


Figure 3. Since 1997, the DWSRF has provided more than \$200 million in funding to over 300 infrastructure improvement projects at Maine's public water systems.

Figure 4.

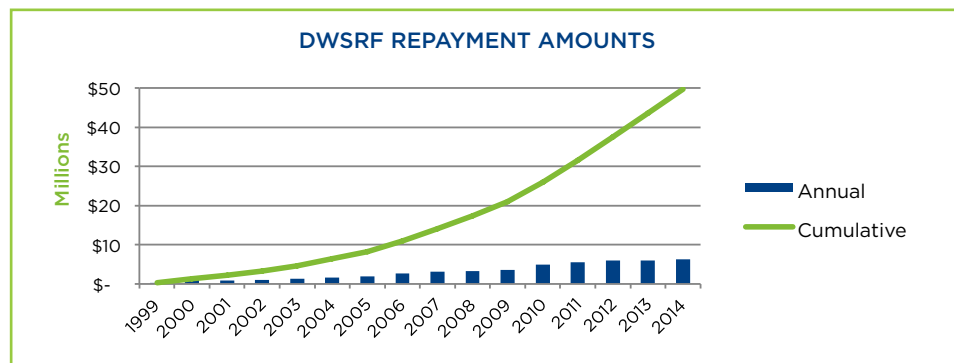


Figure 4. The DWSRF's annual repayment stream is currently almost \$6 million per year and will continue to increase each year.

# 2014 DWSRF Construction Projects

## Bangor Water District

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

**2014 DWSRF FUNDED AMOUNT:** \$ 1,047,843

**ENGINEER:** Bangor Water District

**CONTRACTOR:** S.E. MacMillan

In conjunction with a City of Bangor downtown revitalization/streetscape program, Bangor Water District replaced approximately 4,000 feet of old, unlined cast iron water main on Main Street. The project was necessary to maintain chlorine residuals and control lead solubility to ensure compliance with the Safe Drinking Water Act.

“The project involved a great deal of coordination to keep traffic moving on Main Street, minimize disruption to customers and to integrate with City contractors that were performing sewer, storm drain and road upgrades. We are very pleased that the project was completed ahead of schedule and below budget. The Bangor Water District would like to thank all of the participants who helped make this a successful project.”

• Rick Pershken at Bangor Water District



## Portland Water District

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

**2014 DWSRF FUNDED AMOUNT:** \$ 459,900

**ENGINEER:** Portland Water District

**CONTRACTOR:** A.H. Grover Excavating

Portland Water District's 2014 DWSRF project involved replacing approximately 1,900 feet of 12-inch ductile iron water main, replacing existing 8-inch cast iron water mains installed between 1942 and 1948 and replacing existing service lines, hydrants and side street connections on Scott Dyer Road between Brentwood Road and Hill Way, Cape Elizabeth. This project was undertaken to improve water quality, service reliability and fire flows in the area prior to street paving by the City of Portland.



## Boothbay Region Water District

**TOWNS SERVED:** Boothbay, Boothbay Harbor, East Boothbay

**2014 DWSRF FUNDED AMOUNT:** \$ 788,460

**ENGINEER:** Wright-Pierce

**CONTRACTOR:** Limerick Steeplejacks and N.A. Reny

Boothbay Region Water District utilized 2014 DWSRF funds for two projects. The first project, now completed, involved upgrades to the Mount Pisgah Standpipe to maintain service life longevity for the storage tank. The upgrades included pressure washing and cleaning, repair of minor corrosion, replacement of the ring seal and painting of the tank exterior and appurtenances, such as ladders, platform and vent. The Mount Pisgah Standpipe was constructed in 1997 and is the main storage tank for the District.

The second project, still in progress, consists of the installation of two 8-inch ductile iron water main loops designed to eliminate dead ends and improve water quality in Boothbay Harbor. The first loop will extend approximately 750 feet on Campbell Street to the Mount Pisgah Standpipe. The second loop extends approximately 1,300 feet from Highland Park Road to Sophia Way. The new sections of water main will eliminate multiple dead ends in the water system and are expected to provide significant enhancement of water quality in Boothbay Harbor and improve system service pressure to Highland Park Road and the surrounding area.



## Mexico Water District

**TOWNS SERVED:** Mexico

**2014 DWSRF FUNDED AMOUNT:** \$ 132,100

**ENGINEER:** A.E. Hodsdon Engineering

**CONTRACTOR:** Swasey Excavation

Mexico Water District's project replaced 560 feet of 2-inch galvanized iron water main on Roxbury Road with new 10-inch ductile iron water main.

## Hampden Water District

**TOWNS SERVED:** Hampden

**2014 DWSRF FUNDED AMOUNT:** \$ 360,000

**ENGINEER:** Olver Associates

**CONTRACTOR:** To Be Determined

This project consists of installing a back-up supply well including a well house, chemical feed facility and a connection to the existing distribution system. The Hampden Water District purchases water from the Bangor Water District, but the need for a back-up supply well was identified in the District's 2010 Comprehensive Master Plan. Preliminary hydrologic studies for a back-up well were completed in 2013.



## Bridgton Water District

**TOWNS SERVED:** Bridgton

**2014 DWSRF FUNDED AMOUNT:** \$ 322,320

**ENGINEER:** Snowden Consulting Engineers

**CONTRACTOR:** Goodwin Well & Water

Bridgton's 2014 DWSRF project includes the development of a new bedrock well supply to replace an existing gravel pack well that has seen significant reduction in capacity. The project includes extending electrical power to the new well site.



## Guilford-Sangerville Water District

TOWNS SERVED: Guilford, Sangerville

2014 DWSRF FUNDED AMOUNT: \$ 650,000

ENGINEER: Dirigo Engineering

CONTRACTOR: Manter Construction

Guilford-Sangerville Water District will replace 1,300 feet of antiquated water mains on South Main Street and 900 feet on Douty Hill Road. The new water mains will replace old, undersized, unlined cast-iron mains located on dead-ends. The proposed water improvements are being planned in conjunction with a Maine Department of Transportation project to reconstruct South Main Street.



## Kennebunk, Kennebunkport and Wells Water District

TOWNS SERVED: Kennebunk, Kennebunkport, Wells

2014 DWSRF FUNDED AMOUNT: \$ 812,940

ENGINEER: Kennebunk, Kennebunkport and Wells Water District

CONTRACTOR: Kennebunk, Kennebunkport and Wells Water District

Kennebunk, Kennebunkport and Wells Water District completed two water main replacement projects utilizing 2014 DWSRF funds. The first project replaced approximately 1,700 feet of an obsolete 10-inch cast iron water main estimated to be over 100 years old on U.S. Route 1 in the Town of Ogunquit. The second project replaced approximately 1,850 feet of an obsolete 6-inch cast iron water main estimated to be nearly 100 years old on Boothby Road in the Town of Kennebunk. The existing mains were in poor condition, prone to leaks and exhibiting heavy internal corrosion, leading to diminishing aesthetic water quality. The projects were done in conjunction with the Maine Department of Transportation's estimated \$11 million reconstruction of the Route 1 corridor and in conjunction with the Town of Kennebunk's road reconstruction project.



## Songo Locks Elementary School

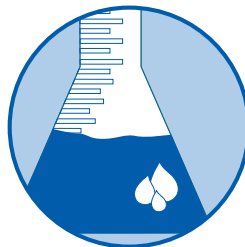
TOWNS SERVED: Naples

2014 DWSRF FUNDED AMOUNT: \$ 135,834

ENGINEER: Snowden Consulting Engineers

CONTRACTOR: Goodwin Well & Water, Inc.

This project provided water system upgrades to the Songo Locks Elementary School in Naples. The project included the installation of a new atmospheric storage tank, booster pumps, liquid level controls and variable frequency units for existing pumps for the purpose of providing additional storage and increased reliability. The project also included the installation of a drinking water aeration system for reduction of radon levels.





## Maine Water Company-Biddeford/Saco Division

**TOWNS SERVED:** Biddeford, Saco, Old Orchard Beach, Scarborough

**2014 DWSRF FUNDED AMOUNT:** \$ 1,864,500

**ENGINEER:** Woodard & Curran, Tata & Howard

**CONTRACTOR:** Apex Construction, Inc. and T. Buck Construction

Maine Water Company-Biddeford/Saco Division had two projects funded by the 2014 DWSRF. The first project is the replacement of the Alfred Road Pump Station, as identified and recommended by the 2013 Comprehensive System Facilities Plan. The Alfred Road Pump Station delivers water to approximately 5,000 connections in Biddeford, including the commercial areas in south Biddeford around Exit 13 of the Turnpike, Southern Maine Medical Center and UNE. The project replaces an existing booster station located in a pit structure with a modern, efficient station, complete with auxiliary power for improved reliability and redundancy.

The second project includes all work required for the civil, structural, mechanical, process, electrical and other work required for the chemical systems upgrade at the water treatment plant. The construction activities were closely coordinated with Maine Water Company, in order for continued operation of the treatment plant and to maintain water quality during the construction period.



## Bethel Water District

**TOWNS SERVED:** Bethel

**2014 DWSRF FUNDED AMOUNT:** \$ 300,884

**ENGINEER:** A.E. Hodsdon Engineering

**CONTRACTOR:** To Be Determined

Bethel Water District's 2014 DWSRF project will replace 830 existing water meters with new, low-lead water meters. All new meters will be radio read technology.

## Old Town Water District

**TOWNS SERVED:** Old Town, Milford

**2014 DWSRF FUNDED AMOUNT:** \$ 210,937

**ENGINEER:** A.E. Hodsdon Engineering

**CONTRACTOR:** Eastwood Contractors

This project includes the replacement of aging cast-iron and galvanized water mains on High Street in Old Town. The street has one fire hydrant with flows of only 200 gallons per minute. Most of the residents suffer from low water volume and pressure, due to clogged, small diameter water mains. This project is a continuation of the District's effort to replace aging, small diameter pipes in the oldest part of the water system. Pipes on High Street date from the late 1800's.

"The DWSRF has helped fund updates to Old Town's water system in recent years. [In 2014] low fire flows along with low service pressure problems were alleviated with the installation of 8-inch ductile iron pipe and new service lines. The low interest rate loans make it very attractive for large and small utilities to keep updating their infrastructure each year."

• Steve Lane, Old Town Water District





## Presque Isle Water District

TOWNS SERVED: Presque Isle

2014 DWSRF FUNDED AMOUNT: \$ 998,000

ENGINEER: Woodard & Curran

CONTRACTOR: Trombley Construction, Inc., McGillan, Inc., Apex Construction, Inc.

Presque Isle utilized DWSRF funding to undertake three projects in 2014. The first project replaces an existing, functionally obsolete water main with 900 feet of 12-inch main on Main Street from the Aroostook River Bridge to Maysville Street. This project prepared the distribution system for a second river crossing. The second project included the installation of roughly 350 feet of 12-inch water mains in the Central Business District. The existing 8-inch main was over 100 years old and could not provide adequate flows, pressures or reliable service. Both water main replacement projects were done in preparation of a road construction project by the Maine Department of Transportation.

The third project is to replace pumps, motors and drives at the high service zone booster station, constructed in 1989. New motor controls will have variable frequency drives and are expected to improve energy efficiencies.



## Yarmouth Water District

TOWNS SERVED: Yarmouth, North Yarmouth

2014 DWSRF FUNDED AMOUNT: \$ 850,000

ENGINEER: Wright-Pierce

CONTRACTOR: Storey Brothers, Inc.

Yarmouth Water District's West Elm Street standpipe has been supplied by a 10-inch unlined, cast iron water main installed in 1895. This project rehabilitated this critical section of Yarmouth's water distribution system by cleaning and lining the approximately 3,000-foot long main from McCartney Street to Main Street. The project is expected to improve water quality and system reliability.



## Passamaquoddy Water District

TOWNS SERVED: Eastport, Perry

2014 DWSRF FUNDED AMOUNT: \$ 1,756,218

ENGINEER: A.E. Hodsdon Engineering

CONTRACTOR: Fundy Contractors and T. Buck Construction

This project consists of replacing 7,185 feet of aging, unlined, leaded-joint, cast iron water mains, services and hydrants on Boyton Street, Green Street, Dana Street, Paispearl Street, Spear Avenue, Staniels Road, Stevens Avenue, Sullivan Street, Woodman Place, Burns Place, Prince Avenue and Barron Road. The replacement is expected to improve water quality delivered to approximately 76 homes in Eastport.

"This final project will complete a 10 year relationship between the Passamaquoddy Water District and the DWSRF, working together to replace almost the entire distribution system in the City of Eastport. The long term benefits for the District include a 22 million gallon per year savings in water production due to previous leaks. Water main breaks are now only in stories from the past and the residents white laundry will no longer have a rusty tint. The staff, customers and engineers of the Passamaquoddy Water District wish to thank DWSRF for the critical and invaluable funding, which made it all possible."

• Mark Deden,  
A.E. Hodsdon Engineering



## Rangeley Water District

**TOWNS SERVED:** Rangeley, Dallas PLT, Rangeley PLT, Sandy River PLT

**2014 DWSRF FUNDED AMOUNT:** \$ 424,570

**ENGINEER:** A.E. Hodsdon Engineering

**CONTRACTOR:** M & H Logging, Inc.

Rangeley Water District utilized 2014 DWSRF funding to replace approximately 2,150 feet of 6-inch unlined, cast-iron water main on School Street and High Street. This project was completed in preparation of a road reconstruction project being done by the Town of Rangeley.



## Caribou Utilities District

**TOWNS SERVED:** Caribou

**2014 DWSRF FUNDED AMOUNT:** \$ 515,000

**ENGINEER:** Caribou Utilities District

**CONTRACTOR:** Marcel Payeur, Inc. and Soderburg Company, Inc.

Caribou Utilities District completed two projects using 2014 DWSRF construction funds. The first project was repainting of two welded steel water storage tanks: the North Main low service tank and the North Main high service tank. The North Main low service tank was last repainted in 1984 and the North Main High Service Tank was last painted in 1998.

"The Caribou Utilities District appreciates the low cost loans available from the State Revolving Loan Fund. Without this important assistance, the amount of work completed would be greatly reduced."

• Alan Hitchcock, Caribou Utilities District



The second project replaced approximately 700 feet of 2-inch cast-iron pipe water main on Coolidge Street with new 6-inch, cement-lined pipe. Replacement of the old, unlined and under-sized water main, which was subject to frequent water main breaks, will enhance service reliability to customers.

## Alfred Water District

**TOWNS SERVED:** Alfred

**2014 DWSRF FUNDED AMOUNT:** \$ 200,000

**ENGINEER:** Dirigo Engineering

**CONTRACTOR:** William P. Davis Excavation

Alfred Water District's 2014 DWSRF projects include the replacement of 400 feet of 2-inch galvanized iron installed in the 1940's with properly sized water mains on the south side of Depot Street. The District will also replace an additional 730 feet of undersized galvanized iron and copper pipe water mains with properly sized water mains. The improvements are a result of recommendations in the District's Comprehensive Master Plan. This work will improve water quality and system reliability for customers served from these water mains.





# DWSRF

## Projects From Prior Years Completed in 2014

### Kennebunk, Kennebunkport and Wells Water District

**TOWNS SERVED:** Kennebunk, Kennebunkport, Wells

**DWSRF FUNDED AMOUNT:** \$ 375,000

**ENGINEER:** Kennebunk, Kennebunkport and Wells Water District

**CONTRACTOR:** Kennebunk, Kennebunkport and Wells Water District

Kennebunk, Kennebunkport and Wells Water District completed the installation of a new water treatment plant. The treatment plant includes the addition of disinfection, corrosion control and fluoridation at the new Kimball Lane Pump Station. This project enabled the District to bring an additional groundwater source online and will allow the District to pump and treat low cost, high quality groundwater on a year round basis. The District anticipates that over 600 Million gallons per year (~60% of the current customer demand) of high quality groundwater will now be available to their current and future customers.



### Maine Water Company- Camden & Rockland Division

**TOWNS SERVED:** Camden, Owls Head, Rockland, Rockport, Thomaston, Warren

**DWSRF FUNDED AMOUNT:** \$ 990,726

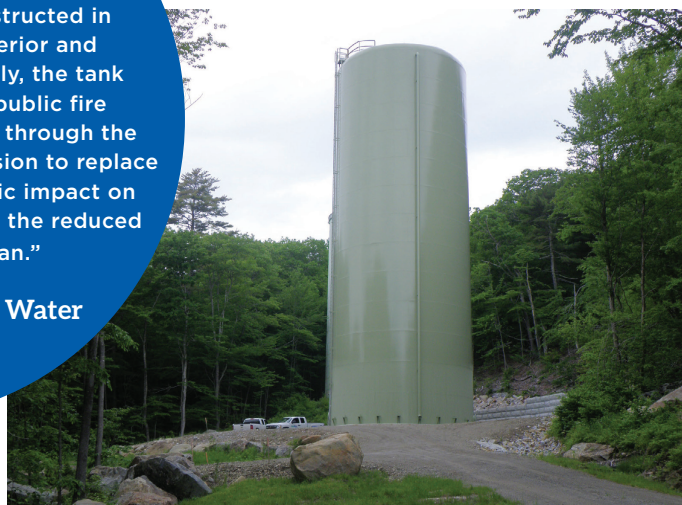
**ENGINEER:** Gartley & Dorsky

**CONTRACTOR:** Fisher Tank Company and Jake Barbour Inc.

Maine Water Company's Camden & Rockland Division completed the replacement of the aging Mountain Street standpipe in Camden. The standpipe was a 577,000-gallon, riveted, steel-finished water storage tank built in 1902. The new tank is a 750,000-gallon, welded-steel storage tank on the same site.

"Maine Water Company was faced with a 'repair or replace' decision on our riveted steel water storage tank in Camden. The tank was originally constructed in 1901 and required a full interior and exterior recoating. Additionally, the tank was undersized for current public fire protection standards. Funding through the DWSRF program made our decision to replace the tank easier as the economic impact on our customers was softened by the reduced interest rate on the loan."

• Rick Knowlton, Maine Water Company





# 2014 DWSRF Non-Construction Projects



## System Consolidation Grants

Water System Consolidation Grants provide partial funding to water systems for the purpose of consolidation with 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 have technical, managerial or

financial capacity issues and 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.

PWS (RECEIVING FUNDS)	TOWN	PUBLIC WATER SYSTEM CONNECTING TO:	REASON FOR CONSOLIDATION	GRANT AMOUNT
Café Sebago	Raymond	Portland Water District	Chronic bacterial contamination	\$15,000
RSU 15 Memorial School	New Gloucester	New Gloucester Water District	Uranium compliance issues	\$100,000



## 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 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, with a few \$10,000 grant awards available, depending on the scope of the 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.

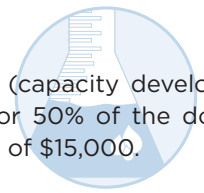
PUBLIC WATER SYSTEM	PROJECT DESCRIPTION	GRANT AMOUNT
Boothbay Region Water District	Develop and implement several projects designed to increase watershed protection and raise public awareness of watershed conservation practices in 2014 and 2015.	\$5,000
Kennebec Water District	Hire a consultant to update the China Lake Watershed Based Management Plan by studying internal recycling of phosphorus and incorporating water quality effects from restoration of the anadromous fishery.	\$10,000
York Water District	Replacement of approximately one mile of the York Water District Yellow Trail, an existing multi-use/management trail in the Chase's Pond Watershed.	\$10,000



# Capacity Development Grants

Capacity Development Grants provide assistance to public waters 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
Waterboro Water District	Comprehensive System Facilities Plan	\$5,000
Bridgton Water District	Hydraulic Analysis Study	\$12,500
Lisbon Water Department	Interconnection Feasibility Study	\$5,000
Clinton Water District	GIS Mapping	\$3,000
East Vassalboro Water Company	Comprehensive System Facilities Plan	\$2,000
Exeter Water Department	GIS Map, Asset Database, Asset Management Program, Capital Improvements Plan	\$5,000
Town & Country Apartments	Comprehensive O&M Manual	\$350
Cedar Haven Mobile Home Park	Comprehensive O&M Manual	\$350
Pine Cone Mobile Home Court #1	Comprehensive O&M Manual	\$350
Fairground Apartments	Comprehensive O&M Manual	\$350
Greenwood Garden Apartments	Comprehensive O&M Manual	\$350
Havasu Pines Mobile Home Park #1	Comprehensive O&M Manual	\$350
Havasu Pines Mobile Home Park	Comprehensive O&M Manual	\$350
Holden Square Apartments	Comprehensive O&M Manual	\$350
Strictly Mobile Homes Inc.	Comprehensive O&M Manual	\$350
R&K Mobile Home Park	Comprehensive O&M Manual	\$350
Caribou Trailer Park #2	Comprehensive O&M Manual	\$350
Riverside Court	Comprehensive O&M Manual	\$350
Lazy Acres Mobile Home Park	Comprehensive O&M Manual	\$350
Delwood Trailer Park	Comprehensive O&M Manual	\$350
Caribou Stream Mobile Home Park	Comprehensive O&M Manual	\$350
Rivers Bend Mobile Home Park	Comprehensive O&M Manual	\$350
Sunny Slope Trailer Park	Comprehensive O&M Manual	\$350
Golden Gate Trailer Park	Comprehensive O&M Manual	\$350
Newport Water District	GIS Mapping	\$9,750
Loring Development Authority	Disinfection Byproducts Compliance Evaluation	\$10,000
Hampden Water District	Hydrogeologic Investigation for Emergency Well	\$2,578.74
Auburn Water District	Groundwater Investigation	\$15,000
Washburn Water & Sewer District	Hydrogeological Investigation for Supplemental Source Water	\$7,500
Dexter Utility District	Asset Management Plan	\$5,000
Guilford-Sangerville Water District	Asset Management Plan	\$5,000
Orono-Veazie Water District	Water Supply and Treatment Alternatives Study & Hydraulic Modeling	\$15,000
Van Buren Water District	Asset Management Plan	\$5,000

# 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, with a few \$10,000 grant awards available, depending on the scope of the 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. Examples of

projects eligible for Wellhead Protection Grants include, but are not limited to, the assistance in the replacement of oil storage tanks in the source protection area, subsidizing the removal of septic systems from the source protection area, establishing or enabling a source monitoring program, removing hazardous chemicals from the source protection area, developing or implementing drinking water education programs, establishing local protective ordinances or legal agreements in the source protection area and many other types of projects that aim to reduce contamination of the wellhead protection area.

PUBLIC WATER SYSTEM	PROJECT DESCRIPTION	GRANT AMOUNT
Alfred Water District	Conduct Outreach to York County and Town of Alfred to fund water quality monitoring and assist in planning and inspecting the installation of additional wells to accurately characterize the nitrate-nitrogen contamination plume.	\$5,000
Caribou Utilities District	Replace five older steel, single-walled oil tanks with new double-walled tanks located within the District's wellhead protection area.	\$5,000
Cornville Regional Charter School	Fill, cap and appropriately abandon defunct well located within 15 feet of well currently being used to serve the water system.	\$5,000
Grandeur Mobile Home Estates	Replace existing single-walled oil tanks with new double-walled tanks or replace oil burners with propane components for tanks located within 1,000 feet of water system wells.	\$5,000
Pine Cone Mobile Home Court #1	Replace single-walled above ground oil tanks within wellhead protection area with double-walled tanks.	\$5,000
Rivers Bend Mobile Home Park	Replace five older steel single-walled oil tanks with new double-walled tanks located within the system's wellhead protection area.	\$5,000
Sabattus Sanitary District	Obtain professional assistance with inserting language from model wellhead protection ordinance found in the District's current Wellhead Protection Plan into proposed town ordinances.	\$10,000
Sanford Water District	Purchase and install groundwater protection area signs throughout wellhead protection areas	\$5,000
South Berwick Water District	Install three gates at Blackmere Pump Station to protect well field.	\$3,000
South Slope Estates	Replace existing single-walled oil tanks with new double-walled tanks or replace oil burners with propane components for tanks located within 1,000 feet of water system wells.	\$5,000
Springbrook Mobile Home Park	Replace existing single-walled oil tanks located within wellhead protection area with double-walled oil tanks.	\$4,000
Town of Portage Lake	Construct locking building enclosure around well.	\$2,500
Winter Harbor Water District	Install oil catch basins under several oil tanks located within wellhead protection area.	\$5,000
Yarmouth Water District	Inventory and replace single-walled home heating oil tanks with double-walled tanks and/or convert petroleum fuel systems to alternative fuel systems that eliminate groundwater contamination threat within 1,000 feet of District wells.	\$10,000



## Very Small System Compliance Loans



The Very Small System Compliance Loan Program was established in 2010. This program is directed at very small systems including all community systems (except those 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 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.

As of December 31, 2014, twenty public water systems have received funding and resolved compliance issues. Total project expenses of \$308,786 improved water quality to 2,698 users, for an average cost of \$126 per user.

PUBLIC WATER SYSTEM	# OF PEOPLE SERVED BY WATER SYSTEM	COMPLIANCE ISSUE	GRANT AMOUNT
Living Waters Christian School & Daycare	70	Elevated arsenic levels	\$8,600
Damariscotta Montessori School	130	Elevated radon levels	\$5,200

## 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*, EPA notes that “the best way to control activities within sensitive areas is to purchase land and/or development rights to that land.”

In 2014, the DWSRF provided \$244,100 in funding through the Land Acquisition Loan Program for York Water District to purchase land within their watershed to protect Chase’s Pond, their source of drinking water.



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



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