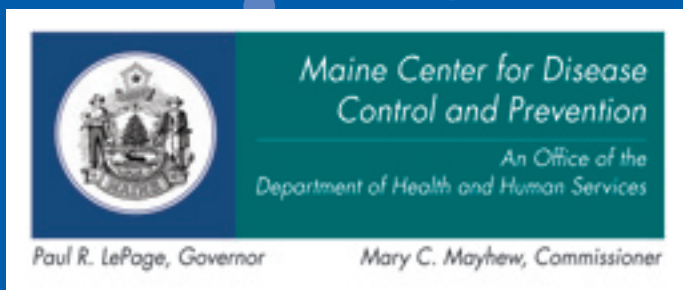


# Working Together for Safe Drinking Water



## Drinking Water Construction Project Report 2013

with funding from the Drinking Water State Revolving Fund



## \$200 Million Invested and Counting...

# Introduction



Dear Reader,

Writing the opening message of the Annual Drinking Water Construction Project Report is always a great pleasure. This year, I am particularly proud to announce we exceeded the \$200 million level in total loans and grants to public water systems in the spring of 2014. This report highlights the work done in 2013, as well as some of the more memorable and significant projects we have assisted with over the past 17 years.

This accomplishment demonstrates increased public health protection through helping water systems reliably serve safe drinking water. This accomplishment is also about great people doing great work. I am fortunate to find myself leading an exemplary team of professionals who are making a positive difference in the world they live in.

Of course, our success is in no way limited to the staff here at the Drinking Water Program and the Maine Municipal Bond Bank. There are countless dedicated men and women in the drinking water industry who daily apply their talents, and expertise, to serve their customers, community and state.

Safe, reliable and affordable drinking water is fundamental to the wellbeing and the economic prosperity of communities across the State. Drinking Water State Revolving Fund (DWSRF) financing of construction projects provides a significant cost savings to water rate payers who include 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.

As we celebrate the continued success of the DWSRF, I extend my thanks and gratitude to the men and women in Maine who work every day to keep safe drinking water flowing to our homes and businesses. Their work extends lives, protects our communities and makes life more enjoyable.

I hope this publication helps you appreciate the positive work accomplished through the DWSRF.

Yours for safe drinking water,

Roger L. Crouse, P.E.

Director, Maine CDC Drinking Water Program

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## About the DWSRF

The 1996 Amendments to the Safe Drinking Water Act (SDWA) included the creation of 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 secure the federal funding. This ratio means that every one dollar invested by the State of Maine secures five federal dollars. For 2013, Maine invested \$1,684,200 to access \$8,421,000 in federal funding for Maine public 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.

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 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 more than \$200 million to public water systems through low interest loans and grants.



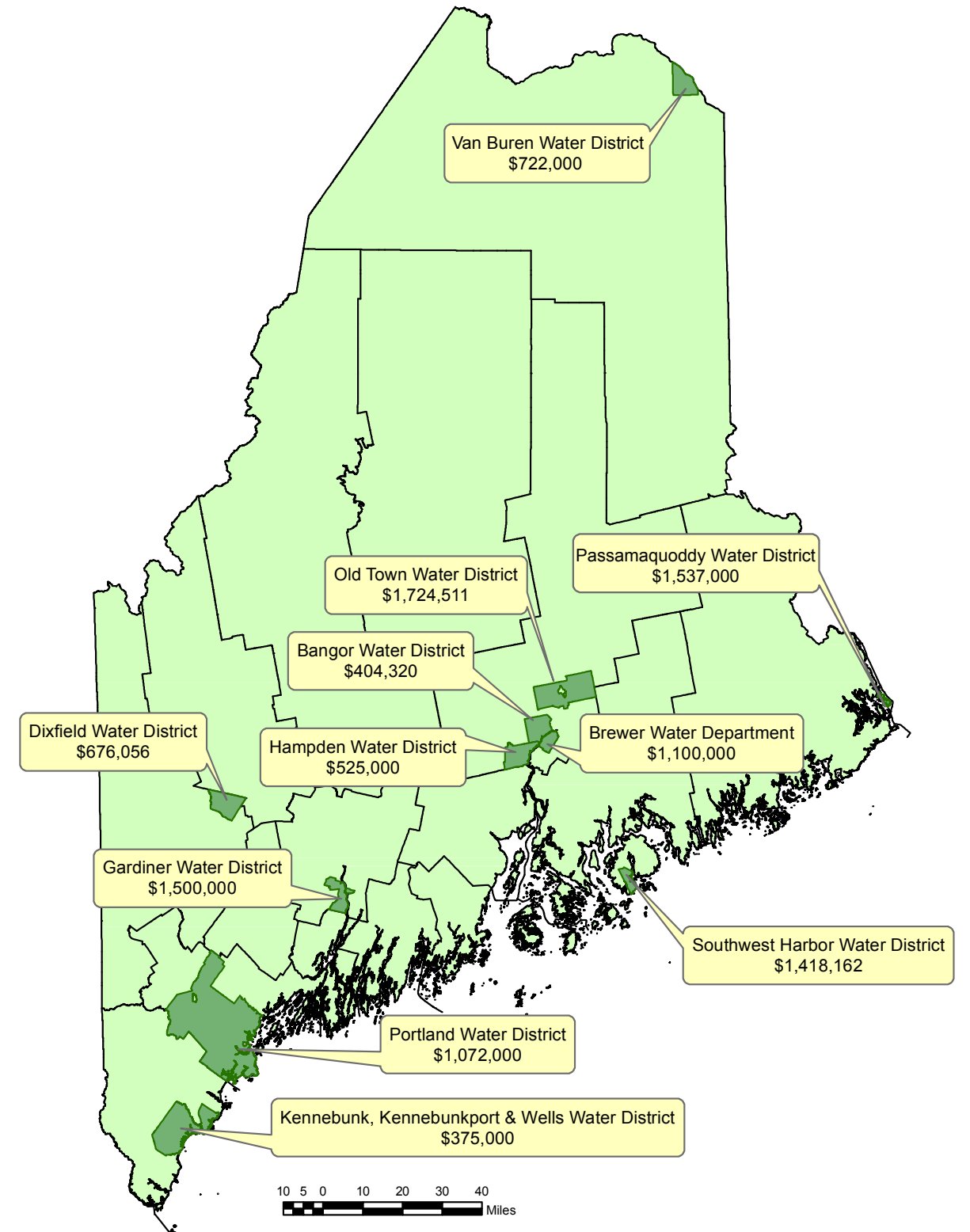
"THE DWSRF FUNDS HAVE MADE IT POSSIBLE TO CONTINUE TO REPLACE AGING WATER MAINS AND DELIVER OUR DRINKING WATER AND FIRE PROTECTION THROUGH SAFE, CLEAN WATER MAINS."

• **Nancy Seeley**, Superintendent, Passamaquoddy Water District

## 2013 DWSRF Construction Projects at a Glance

WATER SYSTEM	TOWNS SERVED	DESCRIPTION	2013 DWSRF FUNDING AMOUNT
Bangor Water District	Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie	Water Main Replacement	\$404,320
Portland Water District	Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham	Water Main Replacement	\$1,072,000
Passamaquoddy Water District	Eastport, Perry	Treatment Plant Upgrades & Water Main Replacements	\$1,537,000
Southwest Harbor Water Department	Southwest Harbor	Water Main Replacement	\$1,418,162
Hampden Water District	Hampden	Water Main Replacement	\$525,000
Brewer Water Department	Brewer, Clifton, Eddington, Holden, Orrington	Construction of Ultraviolet Disinfection Treatment System	\$1,100,000
Van Buren Water District	Van Buren	Treatment Plant Upgrades & Water Storage Tank Replacement	\$772,000
Old Town Water District	Old Town, Milford	Water Main Replacement	\$1,724,511
Dixfield Water and Sewer Department	Dixfield	Water Main Replacement	\$676,056
Gardiner Water District	Gardiner, Randolph, Farmingdale	Water Storage Tank Replacement	\$1,500,000
Kennebunk, Kennebunkport, and Wells Water District	Kennebunk, Kennebunkport, Wells	Treatment and Source Upgrades	\$375,000

## Public Water Systems Receiving 2013 DWSRF Construction Funding





# Public Water Systems Receiving 2013 DWSRF Non-Construction Funding

## CAPACITY DEVELOPMENT GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Belfast Water District	Belfast, Northport	\$2,500
Southwest Harbor Water Department	Southwest Harbor	\$5,000
Hebron Water Company	Hebron	\$4,000
Anson & Madison Water District	Anson, Madison	\$15,000
Stonington Water Company	Stonington	\$5,000
Bryant Pond Spring	Woodstock	\$3,000
Sugarloaf Water Association	Carrabassett Valley	\$10,000
Castine Water Department	Castine	\$6,500
Great Salt Bay Sanitary District	Damariscotta, Newcastle	\$15,000
Portland Water District	Cape Elizabeth, Cumberland, Falmouth, Gorham, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham	\$10,000

## VERY SMALL WATER SYSTEM COMPLIANCE LOANS

PUBLIC WATER SYSTEM	TOWNS SERVED	COMPLIANCE ISSUE	GRANT AMOUNT
Rosewood Estates	Fort Kent	Lead and Copper	\$5,510
MSU 104 Pembroke Elementary School	Pembroke	Arsenic	\$7,995
Belfast Area Children's Center	Waldo	Radon	\$8,480
Sedgwick Elementary School	Sedgwick	Arsenic	\$7,800

## SYSTEM CONSOLIDATION GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	PUBLIC WATER SYSTEM CONNECTING TO	REASON FOR CONSOLIDATION	GRANT AMOUNT
Great Harbor Condominiums	Southwest Harbor	Southwest Harbor Water Department	Financial capacity issues	\$7,763
RSU 57 Waterboro Elementary School	Waterboro	Waterboro Water District	Arsenic, lead, copper compliance issues	\$78,564
Rosewood Estates	Fort Kent	Fort Kent Water and Wastewater Department	Lead and copper compliance issues	\$100,000
RSU 39 Ski Building	Caribou	Caribou Utilities District	Bacterial contamination	\$15,301

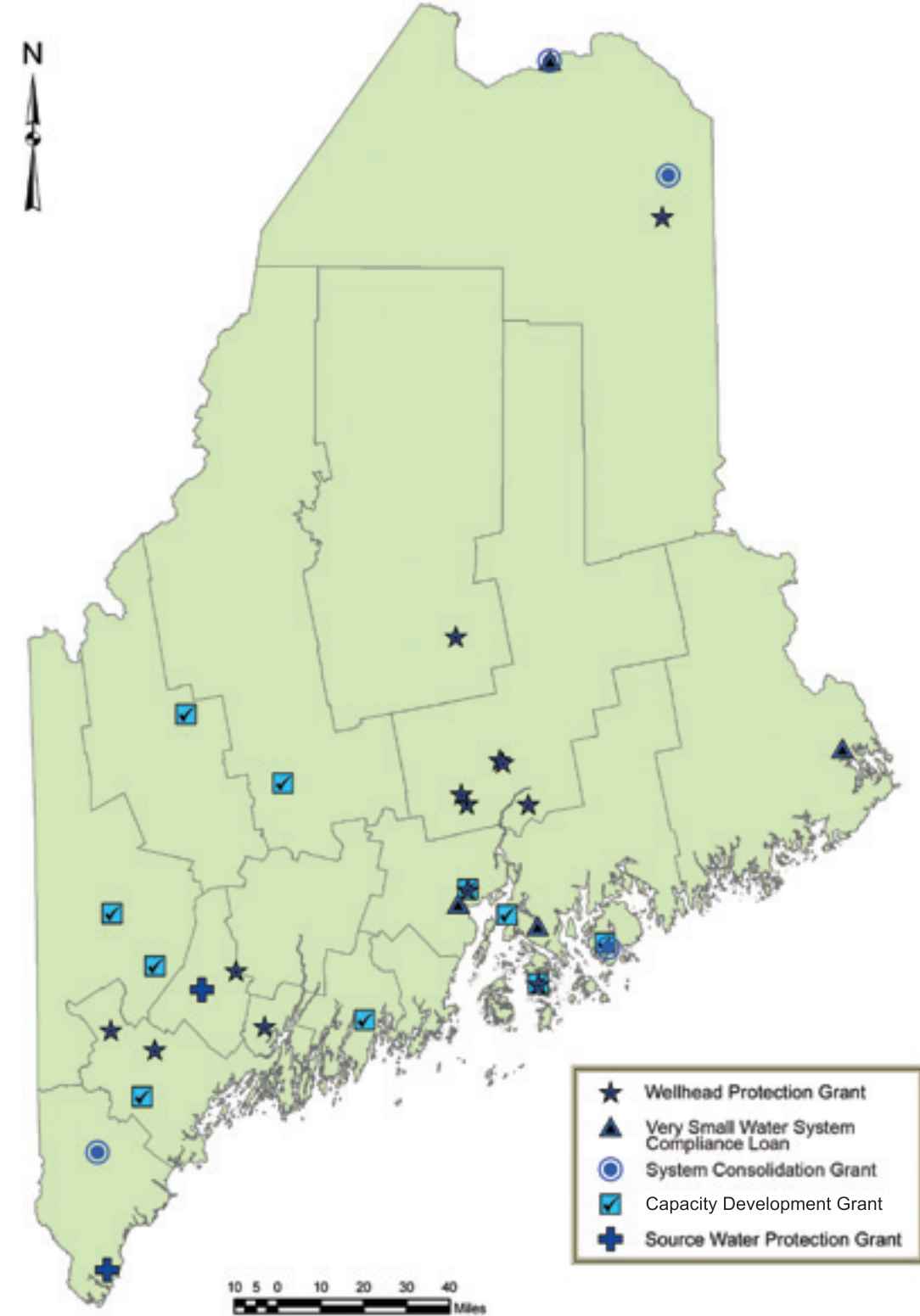
## WELLHEAD PROTECTION GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Pine Village, Inc.	Presque Isle	\$5,000
Springbrook Mobile Home Park	Wales	\$5,000
Three Rivers Mobile Home Community	Brownville	\$5,000
Pine Cone Mobile Home Park	Holden	\$5,000
Bowdoinham Water District	Bowdoinham	\$5,000
RSU 14 Jordan Small Middle School	Windham	\$3,200
Stonington Water Company	Stonington	\$2,000
Homestead Estates Mobile Home Park	Glenburn	\$5,000
Hingham Heights MHP	Glenburn	\$5,000
Grandeur Mobile Home Estates	Carmel	\$5,000
South Slope Estates	Carmel	\$5,000
Lake Region High School	Naples	\$5,000
Belfast Water District	Belfast, Northport	\$5,000

## SOURCE WATER PROTECTION GRANTS

PUBLIC WATER SYSTEM	TOWNS SERVED	GRANT AMOUNT
Auburn Water District	Lewiston, Auburn, Poland	\$10,000
York Water District	York	\$10,000

# Public Water Systems Receiving 2013 DWSRF Non-Construction Funding



# \$200 Million Invested and Counting...



## What Have We Accomplished?

From Madawaska to South Berwick, from Eastport to Andover, and more than 115 locations in between, the Drinking Water State Revolving Fund (DWSRF) has been making a positive difference at public water systems across the State of Maine. More than \$200 million was invested in over 300 construction projects in the past 17 years. This work improved the quality of life for many Maine residents, while saving ratepayers tens of millions of dollars.

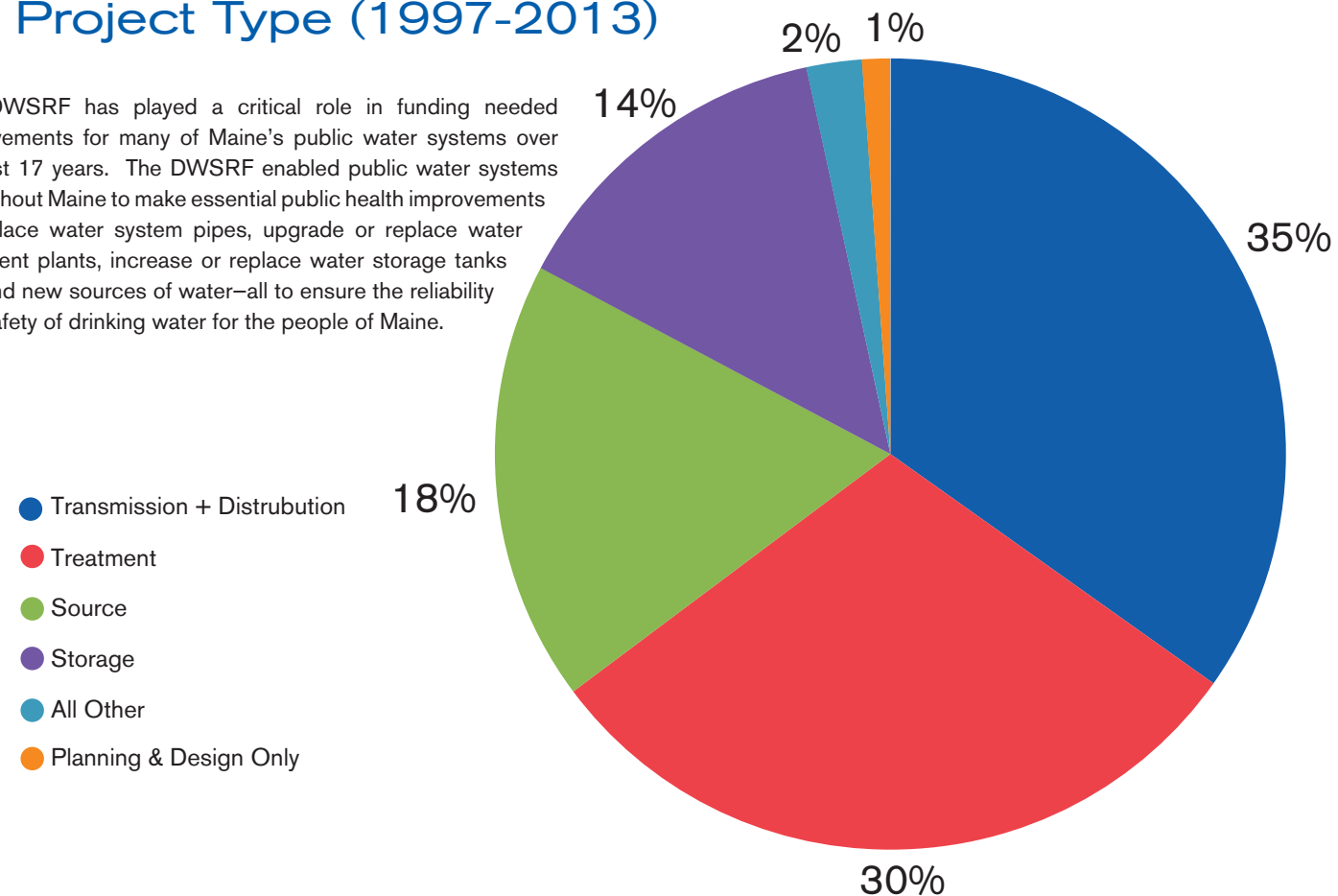
This work also provided an economic boost to Maine communities. Based upon an estimate of 45 jobs per million spent<sup>1</sup>, the \$200 million investment created 9,000 jobs. Additionally, a safe and reliable water supply is essential for investment, businesses and families to an area.

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

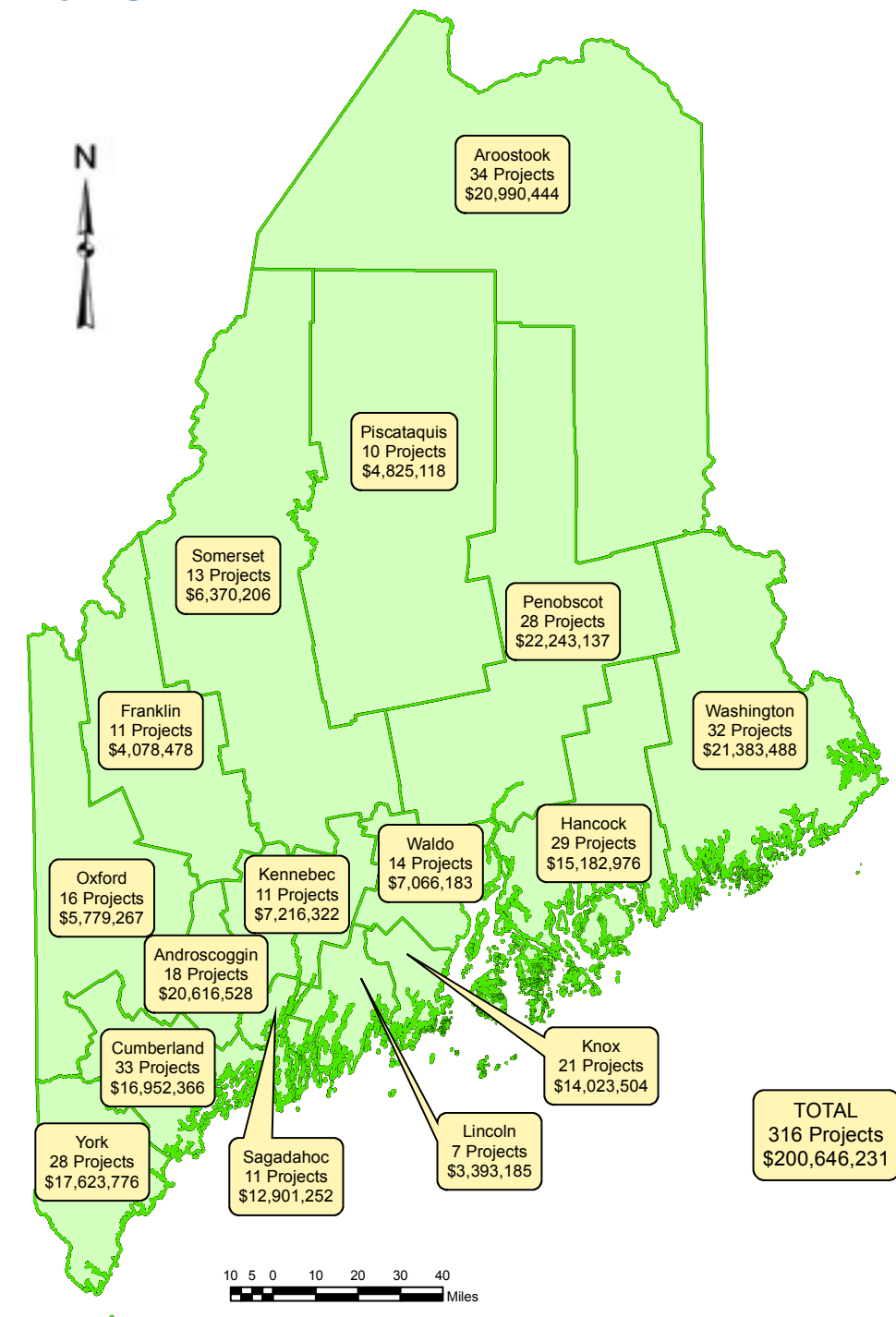
1. Estimate from the American Society of Civil Engineers 2008 Infrastructure Report Card.

## DWSRF Funding of Infrastructure Improvement by Project Type (1997-2013)

The DWSRF has played a critical role in funding needed improvements for many of Maine's public water systems over the last 17 years. The DWSRF enabled public water systems throughout Maine to make essential public health improvements to replace water system pipes, upgrade or replace water treatment plants, increase or replace water storage tanks and find new sources of water—all to ensure the reliability and safety of drinking water for the people of Maine.



## Total DWSRF Funding by County 1997 to 2013







# A LOOK BACK

## \$200,000,000 DWSRF Milestone

### Gardiner Water District

DWSRF PROJECT LOAN AMOUNT \$2,215,856

LOAN CLOSED ON **March 31, 1998**

ENGINEER: Earth Tech Inc. (now AECOM)

CONTRACTOR: 20+ subcontractors. Earth Tech Inc. acted as the Construction Manager

This project upgraded the drinking water treatment facilities for the Gardiner Water District. A new treatment facility was constructed on the existing water treatment plant site and the project included the re-use and improvements to existing structures at the site. Equipment was installed to remotely monitor and operate off-site facilities. Modifications and improvements included conversion of the existing filter building to a chemical feed building, a new filter building constructed on top of an existing clearwell, and rehabilitation of underground sand filters for use as backwash basins. The filter building included the pressure filter units, control room and laboratory. The improvements were made to ensure safe drinking water for the Gardiner Water District customers.

### Waldoboro Water Department

DWSRF PROJECT LOAN AMOUNT \$2,025,000

LOAN CLOSED ON **June 21, 2005**

ENGINEER: Earth Tech. Inc. (now AECOM)

CONTRACTOR: Apex Construction Inc. and George C. Hall & Sons Inc.

This project developed a permanent supply and the necessary infrastructure to deliver water to customers. This supply replaced an existing groundwater supply with high levels of uranium. The project included land acquisition, construction of two bedrock wells, a pump station and treatment facility, and 13,000 feet of transmission main.

### Bath Water District

DWSRF PROJECT LOAN AMOUNT \$2,100,000

LOAN CLOSED ON **October 24, 2006**

ENGINEER: Wright-Pierce

CONTRACTORS: H.C. Crooker and DN Tanks (formerly Natgun Corporation)

This project completed the design and construction of a water storage tank to replace the deteriorating North End Tank. Due to original design problems associated with the North End Tank, substantial degradation of the concrete walls and metal diaphragm repairs were not considered effective. The new tank was constructed at the existing tank site and included upgrades to a 16-inch water main connection to the tank.

### Passamaquoddy Water District

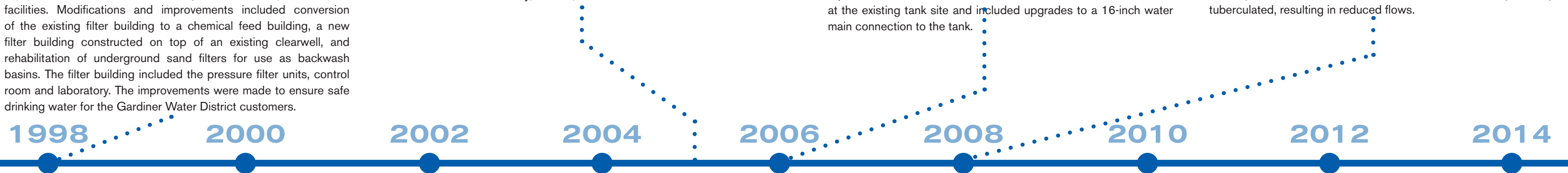
DWSRF PROJECT LOAN AMOUNT \$1,845,000

LOAN CLOSED ON **April 25, 2008**

ENGINEER: A.E. Hodsdon Engineers

CONTRACTOR: S.H. Bridges Construction, Inc.

This project involved the replacement of distribution system mains. It completed all of the major loops in the system, along last remaining section of main in the MDOT right-of-way. Many existing mains in this project were not installed deep enough and susceptible to freezing. In addition, the mains installed in 1891 were significantly tuberculated, resulting in reduced flows.



# 2013

## DWSRF Construction Projects



BREWER

### Portland Water District

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

**2013 DWSRF FUNDED AMOUNT:** \$ 1,072,000

**ENGINEER:** Portland Water District

**CONTRACTOR:** Glidden (Debois & Longfellow), Gorham Sand & Gravel (Central)

Portland's project replaces approximately 2,100 feet of water main on Central Street in Westbrook, replacing galvanized iron pipes from 1909; approximately 1,200 feet on Washington Avenue in Portland, replacing cast iron unlined pipe from 1939; and approximately 1,250 feet on Longfellow Street, and Deblois Street in Portland. These projects are undertaken to improve water quality, water pressure and fire flows in the service areas.



"AS A RESULT OF THE WATER MAIN REPLACEMENTS IN CENTRAL STREET IN WESTBROOK AND LONGFELLOW STREET/ DEBLOIS STREET IN PORTLAND, CUSTOMERS HAVE RECEIVED THE BENEFIT OF IMPROVED WATER QUALITY DUE TO THE IMPROVED FLOW CHARACTERISTICS IN THE LARGER PIPE AND THE IMPROVED RELIABILITY OF THE WATER MAIN DUE TO THE REDUCTION IN THE PROBABILITY OF A MAIN BREAK OR LEAK RESULTING IN A SERVICE INTERRUPTION."

• **Ned Pierce**, Project Engineer, Portland Water District

### Van Buren Water District

**TOWNS SERVED:** Van Buren

**2013 DWSRF FUNDED AMOUNT:** \$ 772,000

**ENGINEER:** Dirigo Engineering

**CONTRACTOR:** TBD

Van Buren's first of two projects utilizing 2013 DWSRF funds will upgrade the present 24 year old water treatment system to improve efficiency and water quality. Primary areas of upgrade include filter system piping, filter media, filter tanks, service pumps, SCADA controls, chemical feed equipment, and energy improvement with VFD controls.

The second project is for the engineering designs to replace the 500,000 gallon Keegan Standpipe water storage tank and the 1,100,000 gallon Tower Drive Standpipe water storage tank (both of which were constructed in 1969) with new, pre-cast concrete tanks.

### Brewer Water Department

**TOWNS SERVED:** Brewer, Clifton, Eddington, Holden, Orrington

**2013 DWSRF FUNDED AMOUNT:** \$ 1,100,000

**ENGINEER:** Woodard & Curran

**CONTRACTOR:** T. Buck Construction

This project provides funding to design and construct an Ultra-Violet (UV) disinfection facility to meet the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule, to further protect against disease-causing microorganisms.



"BEING MY FIRST TIME, I FOUND THE PROCESS TO BE REMARKABLY SIMPLE AND THE DRINKING WATER STAFF TO BE VERY HELPFUL WITH ANY QUESTIONS THAT CAME UP!"

• **Rodney Butler**, Superintendent, Brewer Water Department

### Dixfield Water & Sewer Department

**TOWNS SERVED:** Dixfield

**2013 DWSRF FUNDED AMOUNT:** \$ 676,056

**ENGINEER:** A.E. Hodsdon Engineers

**CONTRACTOR:** TBD

The project consists of replacing 5,500 feet of leaded-joint cast iron water mains, services, and hydrants on Pine Street, High Street, North Street, Kidder Street, and Dix Street in Dixfield. Some of the mains to be replaced are galvanized iron pipe. The project will improve water quality and system reliability for approximately 53 homes in Dixfield. The project is being completed in conjunction with proposed street improvement by the Town of Dixfield.





PASSAMAQUODDY



## Passamaquoddy Water District

**TOWNS SERVED:** Eastport, Perry

**2013 DWSRF FUNDED AMOUNT:** \$ 1,537,000

**ENGINEER:** A.E. Hodsdon Engineers

**CONTRACTOR:** Morgan Construction (Treatment Plant Upgrades), T. Buck Construction (Water Main Replacements)

The first project at Passamaquoddy involves upgrading the present 23-year-old surface water treatment plant. The treatment plant upgrade will help produce water quality in compliance with Safe Drinking Water Act (SDWA) regulations. Primary areas of upgrade include roughing filter, filters and clarifiers, filter to waste piping, SCADA controls, and an energy efficient main pump replacement.

Passamaquoddy's second project in 2013 replaced 3,020 feet of 1890's leaded joint cast iron water, services, and hydrants on Dana, Middle, Shackford, and Third Streets in Eastport. The replacement water pipes improved water quality delivered to approximately 53 homes in Eastport, and is expected to reduce freeze-ups and water main breaks in those areas.

## Bangor Water District

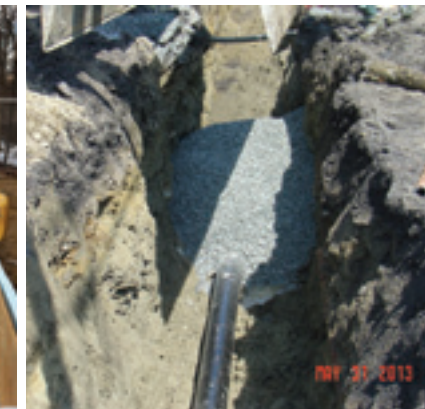
**TOWNS SERVED:** Bangor, Clifton, Eddington, Hampden, Hermon, Orrington, Veazie

**2013 DWSRF FUNDED AMOUNT:** \$ 404,320

**ENGINEER:** Maine Dept. of Transportation & Bangor Water District

**CONTRACTOR:** TBD

This project will replace a 100-year-old water main on the Union Street Bridge in conjunction with a bridge rehabilitation undertaken by the Maine Department of Transportation.



## Kennebunk, Kennebunkport & Wells Water District

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

**2013 DWSRF FUNDED AMOUNT:** \$ 375,000

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

**CONTRACTOR:** TBD

This project consists of installing water treatment, including disinfection, corrosion control and fluoridation, at the new Kimball Lane Pump Station. This project brings an additional groundwater source to the mix of water supplies for the District.

## Old Town Water District

**TOWNS SERVED:** Old Town, Milford

**2013 DWSRF FUNDED AMOUNT:** \$ 1,724,511

**ENGINEER:** Sewall & CES, Inc.

**CONTRACTOR:** Sargent Corporation, Eastwood Contractors, and Sitewerx, Inc.

This project includes the replacement of approximately 1,800 feet of 1930's unlined leaded joint cast iron water main on Stillwater Avenue done in conjunction with the upgrade of other utilities (gas, sewer, electric, and telecommunications) with roadway improvements completed by the Maine Department of Transportation.

Old Town has an additional 2013 DWSRF project to replace 2,860 feet of old, undersized 2-inch galvanized iron and 4-inch cast iron pipe with 8 inch ductile iron pipe. The project will improve water quality and system reliability and is being completed in conjunction with proposed street improvements by Old Town and Milford.

## Gardiner Water District

**TOWNS SERVED:** Gardiner, Randolph, Farmingdale

**2013 DWSRF FUNDED AMOUNT:** \$ 1,500,000

**ENGINEER:** Wright Pierce

**CONTRACTOR:** TBD

This project will result in the replacement of the 500,000 gallon steel standpipe water storage tank in Farmingdale with a new, properly sized, pre-stressed concrete tank. The new tank will advance the integration plan for the Gardiner Water District and the Hallowell Water District to improve service delivery and reliability to customers.





HAMPDEN

SOUTHWEST HARBOR

# PROJECTS

## from Prior Years Completed in 2013

### Southwest Harbor Water Department

TOWNS SERVED: Southwest Harbor

2013 DWSRF FUNDED AMOUNT: \$ 1,418,162

ENGINEER: Olver Associates

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

This project includes the replacement of a deteriorated 6-inch water line on Main Street between Woods Road and Seal Cove Road. The project is occurring in coordination with a Maine Dept. of Transportation Municipal Partnership Initiative, which will include pavement resurfacing within the work area. The project is also being coordinated with sewer work.

### Hampden Water District

TOWNS SERVED: Hampden

2013 DWSRF FUNDED AMOUNT: \$ 525,000

ENGINEER: Woodard & Curran

CONTRACTOR: Sitewerx, Inc.

Hampden Water District replaced aging and undersized water mains ahead of a planned full depth reconstruction of Main Road North by the Maine Department of Transportation. Approximately 1,950 feet of 8- and 10-inch water main installed in 1938 was replaced with 12 inch ductile iron pipe on Main Road North in Hampden.



"THE HAMPDEN WATER DISTRICT WILL CONTINUE TO USE THE SRF PROGRAM FOR MAJOR CONSTRUCTION PROJECTS THAT NEED TO BE FUNDED IN A LONG TERM MANNER. THE SRF PROGRAM IS A GREAT TOOL THAT SHOULD BE UTILIZED BY ANY UTILITY FACED WITH NECESSARY UPGRADES."

• **Jamie Holyoke**, Working Superintendent, Hampden Water District

### Bangor Water District

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

DWSRF FUNDED AMOUNT: \$ 2,403,800

ENGINEER: Black and Veatch

CONTRACTOR: T. Buck Construction

This project provided partial funding to complete the construction of an Ultra-Violet (UV) disinfection facility to meet the Cryptosporidium inactivation requirements of the Long Term 2 Enhanced Surface Water Treatment Rule. The design of this upgrade was funded in a previous DWSRF project. The total project cost was approximately \$4,900,000, including the design costs. Specific improvements included a new building, UV disinfection equipment, site work, and new piping.



"THROUGHOUT THE DESIGN, CONSTRUCTION, AND START-UP IT WAS A TEAM EFFORT BETWEEN BWD, BLACK & VEATCH, CALGON, AND T BUCK TO BRING A LARGE-SCALE VERSION OF A RELATIVELY NEW TECHNOLOGY TO THE STATE. THIS ENSURED THAT THE RIGHT DECISIONS WERE MADE THAT WERE IN THE BEST INTEREST OF THE PROJECT."

• **Mario Francucci**, Black & Veatch

### Calais Water Department

TOWNS SERVED: Calais

DWSRF FUNDED AMOUNT: \$ 430,000

ENGINEER: Olver Associates

CONTRACTOR: T. Buck Construction

This project replaced old, undersized, and deteriorated water mains on Clark and School Streets. The existing mains were undersized, had continued maintenance problems, and were costly for the District to repair. Many households complained of poor water quality. Replacing these mains and services has greatly improved the reliability and safety of the distribution system.



"SINCE THIS PROJECT WAS DONE, THE WATER SYSTEM HAS NOTICED A GREAT IMPROVEMENT IN THE WATER QUALITY IN THIS AREA AND DOES NOT NEED TO FLUSH THE HYDRANT ON SCHOOL STREET WEEKLY SINCE THE WATER MAIN IS NOW LOOPED. WE NO LONGER GET CALLS REGARDING POOR WATER QUALITY ON THIS STREET."

• **Annaleis Hafford**, Olver Associates



PORTLAND + PRESQUE ISLE

## Portland Water District

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

**DWSRF FUNDED AMOUNT:** \$ 3,000,000

**ENGINEER:** CDM Smith

**CONTRACTOR:** D & C Construction

This project provided partial funding to complete the construction of an Ultra-Violet (UV) disinfection facility to meet the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule and provide additional protection from disease-causing microorganisms. The total estimated project cost is \$12,999,900.

## Presque Isle Water District

**TOWNS SERVED:** Presque Isle

**DWSRF FUNDED AMOUNT:** \$ 686,000

**ENGINEER:** Woodard and Curran

**CONTRACTOR:** T. Buck Construction

Presque Isle Water District replaced 1,900 feet of aging and undersized water mains on South Main Street. The project was completed in conjunction with a Maine Department of Transportation street improvement project.



"THE SOUTH MAIN STREET SEWER AND WATER REPLACEMENT PROJECT WAS AN IMPORTANT PROJECT FOR THE UTILITY DISTRICT BECAUSE IT PROVIDED THE OPPORTUNITY TO REPLACE AGING AND UNDERSIZED INFRASTRUCTURE IN ADVANCE OF AN MDOT ROAD RECONSTRUCTION PROJECT. SUMMER TRAFFIC IN THIS AREA OF RT. 1 IS VERY HEAVY AND T. BUCK DID A GOOD JOB STAGING THE PROJECT TO KEEP THE WORK AREA AS SMALL AS POSSIBLE TO ALLOW TRAFFIC TO FLOW."

• **Nate McLaughlin**, Woodard & Curran

## CANTON KENNEBUNK, KENNEBUNKPORT, & WELLS



## Canton Water District

**TOWNS SERVED:** Canton

**DWSRF FUNDED AMOUNT:** \$ 106,125

**ENGINEER:** Wright-Pierce

**CONTRACTOR:** T. Buck Construction, Goodwin Well & Water, Inc.

This DWSRF loan involved two projects designed to lower the levels of contaminants that can form during treatment, known as Disinfection Byproducts (DBPs). Work included replacement of the media on one Slow Sand Filter and the addition of a Granulated Activated Carbon (GAC) layer in this same filter bed. To better clean the filter beds, a pressure backwash system was installed with an underdrain system. The second project consisted of drilling a 6-inch bedrock well for the purpose of blending with the surface water to further reduce levels of DBPs.



"THE PROJECT AS A WHOLE HAS RESULTED IN 3 QUARTERS OF PASSING DBP RESULTS (SO FAR) WHICH IS AWESOME. PASSING RESULTS SO FAR FOR OUR DBP TESTING WILL HOPEFULLY LEAD TO FULL COMPLIANCE. THE WASH SYSTEM HAS HELPED REDUCE THE AMOUNT OF TIME AND MANPOWER NEEDED FOR FILTER CLEANING WHILE IMPROVING THE EFFECTIVENESS OF THE CLEANING ITSELF. WE GET CLEANER FILTERS IN LESS TIME WITH FEWER PEOPLE."

• **Deborah Hutchins**, Canton Water District

## Kennebunk, Kennebunkport, & Wells Water District

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

**DWSRF FUNDED AMOUNT:** \$ 1,175,040

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

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

KKW replaced 7,150 feet of 8-inch and 10-inch diameter water mains on Fortune's Rock Road in Biddeford Pool. These mains were approximately 100 years old and served the densely populated coastal area of Biddeford Pool. The water main replacements improved aesthetic water quality and reliability of the distribution system serving this area. The project was completed concurrently with a major road reconstruction project with the City of Biddeford.



# 2013 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
Belfast Water District	Update Capital Improvement Plan	\$2,500
Southwest Harbor Water Department	Asset Management Plan	\$5,000
Hebron Water Company	Water System Study	\$4,000
Anson & Madison Water District	Source Water Protection Plan, Source Protection Ordinance, Development and Presentation of Drinking Water Protection Lessons in Local Schools	\$15,000
Stonington Water Company	Hydrological Evaluation of Groundwater Wells	\$5,000
Bryant Pond Spring	Source Water Protection Plan	\$3,000
Sugarloaf Water Association	Facilities and Capital Improvement Plan	\$10,000
Castine Water Dept.	Water Source Treatment Review Evaluation Processes Conceptual Design	\$6,500
Great Salt Bay Sanitary District	Hydraulic Assessment of Distribution System	\$15,000
Portland Water District	Revise Vulnerability Assessment	\$10,000

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	TOWNS SERVED	PROJECT DESCRIPTION	GRANT AMOUNT
Auburn Water District	Lewiston, Auburn, Poland	Implementation of new education and outreach programs in the Lake Auburn Watershed.	\$10,000
York Water District	York	Between 600 and 800 feet of the Yellow Trail, an existing multiuse/management trail in the Chase's Pond watershed.	\$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 % 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, 2012, 18 public water systems have received funding and resolved compliance issues. Total project expenses of \$350,701 have improved water quality to 2,416 users for an average cost per user of \$145.

## 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 % of the cost of the water system consolidation for For-Profit facilities and up to 75 % 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	# OF PEOPLE SERVED BY WATER SYSTEM	TOWN	COMPLIANCE ISSUE	GRANT AMOUNT
Rosewood Estates	40	Fort Kent	Lead and Copper	\$5,510
MSU 104 Pembroke Elementary School	115	Pembroke	Arsenic	\$7,995
Belfast Area Children's Center	46	Waldo	Radon	\$8,480
Sedgwick Elementary School	130	Sedgwick	Arsenic	\$7,800

PWS (RECEIVING FUNDS)	TOWN	PUBLIC WATER SYSTEM CONNECTING TO:	REASON FOR CONSOLIDATION	GRANT AMOUNT
Great Harbor Condominiums	Southwest Harbor	Southwest Harbor Water Department	Financial capacity issues	\$7,763
RSU 57 Waterboro Elementary School	Waterboro	Waterboro Water District	Arsenic, lead, copper compliance issues	\$78,564
Rosewood Estates	Fort Kent	Fort Kent Water and Wastewater Department	Lead and copper compliance issues	\$100,000
RSU 39 Ski Building	Caribou	Caribou Utilities District	Bacterial contamination	\$15,301

## Source Water Protection Grants



## 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 following: assistance in the replacement of oil storage tanks in the source protection area, 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	TOWNS SERVED	PROJECT DESCRIPTION	GRANT AMOUNT
Pine Village, Inc.	Presque Isle	Excavate around well casing, seal well casing, and backfill with clay material. Additionally, move the existing leach field further away from well.	\$5,000
Springbrook Mobile Home Park	Wales	Replace single-walled above ground oil storage tanks located within 1,000 feet of the public water system well with double walled oil storage tanks.	\$5,000
Three Rivers Mobile Home Community	Brownville	Replace single-walled above ground oil storage tanks located within 1,000 feet of the public water system well with propane components.	\$5,000
Pine Cone Mobile Home Park	Holden	Replace single-walled above ground oil storage tanks located within 1,000 feet of the public water system well with double walled tanks with alarms.	\$5,000
Bowdoinham Water District	Bowdoinham	Install security cameras to monitor the two public water system production wells.	\$5,000
RSU 14 Jordan Small Middle School	Windham	Install four bollards around the school's well to protect the well casing.	\$3,200
Stonington Water Company	Stonington	Secure each well with a locking well cap.	\$2,000
Homestead Estates Mobile Home Park	Glenburn	Replace single-walled above ground oil storage tanks located within 1,000 feet of the public water system well with propane components.	\$5,000
Hingham Heights MHP	Glenburn	Replace above ground oil storage tanks located within 1000ft of the well with propane components.	\$5,000
Grandeur Mobile Home Estates	Carmel	Replace existing, above ground oil storage tanks located within 1,000 feet of public water system well with oil storage tanks, or switch to propane burners and remove the oil tanks completely.	\$5,000
South Slope Estates	Carmel	Replace existing, single-walled above ground oil storage tanks located within 1,000 feet of public water system well with double-walled oil storage tanks, or switch to propane burners and remove the oil tanks completely.	\$5,000
Lake Region High School	Naples	Extend well casing above grade.	\$5,000
Belfast Water District	Belfast, Northport	Update wellhead protection plan.	\$5,000

## 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."

Although there were no Land Acquisition Loans made to water systems in 2013, 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 Public Water Systems Benefiting from the DWSRF (1997-2013)

ADDISON POINT WATER DISTRICT	GARDINER WATER DISTRICT	MSAD 35 MARSHWOOD MIDDLE	SPRING BROOK MOBILE HOME PARK
AGASSIZ VILLAGE	GRANDEUR MOBILE HOME ESTATES	MSU #104-PEMBROKE	ST. FRANCIS WATER DISTRICT
ALFRED WATER DISTRICT	GRAY WATER DISTRICT	ELEMENTARY SCHOOL	STONINGTON WATER COMPANY
ANDOVER WATER DISTRICT	GREAT SALT BAY SANITARY DISTRICT	MSU #52, CHINA MIDDLE SCHOOL	STRONG WATER DISTRICT
ANSON & MADISON WATER DISTRICT	GREATER AUGUSTA UTILITIES DISTRICT	MSU #52, CHINA PRIMARY SCHOOL	SUGARLOAF WATER ASSOCIATION
ANSON WATER DISTRICT	GUILFORD-SANGERVILLE WATER DISTRICT	MSU #52, VASSALBORO	SUNSET GARDENS TRAILER PARK
ASHLAND WATER AND SEWER DISTRICT	HALLOWELL WATER DISTRICT	COMMUNITY SCHOOL	TANGLEWOOD MOBILE ESTATES
AUBURN WATER DISTRICT	HAMPDEN WATER DISTRICT	MSU #76-SEDGWICK ELEMENTARY	TENANTS HARBOR WATER DISTRICT
AUGUSTA WATER DISTRICT	HANCOCK COUNTY TECHNICAL CENTER	MSU#44 OAK HILL HIGH SCHOOL	THE BAY SCHOOL
BAILEYVILLE UTILITIES DISTRICT	HARRISON WATER DISTRICT	MT BLUE STANDARD WATER DISTRICT	THE SANDY POINT WATER COMPANY
BANGOR WATER DISTRICT	HEBRON WATER COMPANY	NEW ENGLAND FRONTIER CAMP	THREE RIVERS MOBILE HOME COMMUNITY
BAR HARBOR WATER DEPARTMENT	HINGHAM HEIGHTS MHP	NEW PORTLAND WATER DISTRICT	VINALHAVEN WATER DISTRICT
BATH WATER DISTRICT	HOMESTEAD ESTATES MOBILE HOME PARK	NEWPORT WATER DISTRICT	WALDOBORO WATER DEPARTMENT
BELFAST AREA CHILD CARE SERVICES, INC.	HOULTON WATER COMPANY	NORRIDGEWOCK WATER DISTRICT	WASHBURN WATER & SEWER DISTRICT
BELFAST WATER DISTRICT	HOWARDS MOBILE HOME PARK	NORTH BERWICK WATER DISTRICT	WATERBORO WATER DISTRICT
BERWICK WATER DEPARTMENT	HOWLAND WATER DISTRICT	NORTH HAVEN WATER DEPARTMENT	WEST PARIS WATER DISTRICT
BETHEL WATER DISTRICT	ISLAND FALLS WATER DEPARTMENT	NORTHEASTERN ESTATE	WHISPERING PINES MOBILE HOME PARK
BIDDEFORD & SACO WATER CO.	ISLESBORO SCHOOL DEPARTMENT	MOBILE HOME PARK	WILTON HEAD START & CHILD CARE
BINGHAM WATER DISTRICT	KENNEBEC WATER DISTRICT	NORTHEASTERN ESTATES	WINTER HARBOR WATER DISTRICT
BLACK MOUNTAIN OF MAINE	KIMBALL LAKE SHORES	NORTHERN SPRING MOBILE HOME PARK	WINTERPORT WATER DISTRICT
BOOTHBAY REGION WATER DISTRICT	WATER COOPERATIVE	NORTHPORT VILLAGE CORP.	WINTHROP UTILITIES DISTRICT
BOWDOINHAM WATER DISTRICT	KINGFIELD WATER DISTRICT	NORWAY WATER DISTRICT	WISCASSET WATER DISTRICT
BREWER WATER DEPARTMENT	KITTERY WATER DISTRICT	OLD TOWN WATER DISTRICT	WOOD POND VILLAGE
BROWNVILLE WATER DEPARTMENT	KENNEBUNK, KENNEBUNKPORT & WELLS	ORLAND CONSOLIDATED SCHOOL	YARMOUTH WATER DISTRICT
BRUNSWICK & TOPSHAM WATER DISTRICT	WATER DISTRICT	ORONO-VEAZIE WATER DISTRICT	YORK WATER DISTRICT
BRYANT POND SPRING	LAKE ARROWHEAD COMMUNITY	OXFORD WATER DISTRICT	
BUCKFIELD VILLAGE CORPORATION	LAKE REGION HIGH SCHOOL	PARKER RIDGE	
CALAIS WATER DEPARTMENT	LEWISTON WATER DEPARTMENT	PASSAMAQUODDY WATER DISTRICT	
CALAIS WATER DISTRICT	LIMERICK WATER DISTRICT	PINE CONE MOBILE HOME PARK	
CANTON POINT PARK	LIMESTONE WATER & SEWER DISTRICT	PINE RIDGE-HUNTON BROOK	
CANTON WATER DISTRICT	LINCOLN WATER DISTRICT	ASSOCIATION	
CARIBOU UTILITIES DISTRICT	LISBON WATER DEPARTMENT	PINE TREE CAMP	
CASTINE WATER DEPARTMENT	LIVERMORE FALLS WATER DISTRICT	PINE VILLAGE, INC.	
CHEBEAUGE ISLAND SCHOOL	LIVING WATER CHRISTIAN SCHOOL	PITTSFIELD WATER DEPARTMENT	
CHEWONKI FOUNDATION	& DAYCARE	POLAND SPRING ACADEMY	
COLD SPRING WATER COMPANY	LOMBO'S PENNINSULA WATER SYSTEM	POLYOT'S MOBILE HOME PARK	
COMMUNITY CONCEPTS, INC. - (D/B/A	LONG POND WATER DISTRICT	PORT CLYDE WATER DISTRICT	
WILTON HEAD START)	LORING UTILITIES	PORTLAND WATER DISTRICT	
CORINNA WATER DISTRICT	MACHIAS WATER COMPANY	PRESQUE ISLE WATER DISTRICT	
CORNISH WATER DISTRICT	MADAWASKA WATER DISTRICT	PRINCETON WATER DISTRICT	
COVERED BRIDGE APARTMENTS	MADISON WATER DISTRICT	RANGE POND APTS. BEST APTS, INC.	
CUBB HOUSING-NICHOLS TRAILER PARK	MAINE WATER COMPANY -	RANGELEY WATER DISTRICT	
TRAILER PARK	BIDDEFORD-SACO	RICHMOND UTILITIES DISTRICT	
DAMARISCOTTA MONTESSORI SCHOOL	MAINE WATER COMPANY - BUCKSPORT	ROSEWOOD ESTATES	
DANFORTH WATER DISTRICT	MAINE WATER COMPANY -	RSU #05, POWNAL ELEMENTARY SCHOOL	
DEER ISLE CONSUMER OWNED UTILITY	CAMDEN-ROCKLAND	RSU #57, WATERBORO	
DEXTER UTILITY DISTRICT	MAINE WATER COMPANY - HARTLAND	ELEMENTARY SCHOOL	
DINGLEY SPRINGS ESTATES	MAINE WATER COMPANY - KEZAR FALLS	RSU 14 JORDAN SMALL MIDDLE SCHOOL	
DIXFIELD WATER & SEWER DEPARTMENT	MAINE WATER COMPANY - MILLINOCKET	RSU 57 - WATERBORO	
DOVER-FOXCROFT WATER DISTRICT	MAINE WATER COMPANY - SKOWHEGAN	ELEMENTARY SCHOOL	
DUCK-A-WAY ON CASCO BAY	MAINE WATER COMPANY - WARREN	RUMFORD WATER DISTRICT	
EAGLE LAKE WATER & SEWER DISTRICT	MARANACOOK COMMUNITY SCHOOL	SABATTUS SANITARY DISTRICT	
EAST VASSALBORO WATER COMPANY	MARS HILL & BLAINE WATER COMPANY	SAINT FRANCIS WATER DISTRICT	
ELLSWORTH WATER DEPARTMENT	MECHANIC FALLS WATER DEPARTMENT	SANDY POINT WATER COMPANY	
FARMINGTON VILLAGE CORPORATION-	MEXICO WATER DISTRICT	SANFORD WATER DISTRICT	
WATER DEPT	MILBRIDGE WATER DISTRICT	SEARSPORT WATER DISTRICT	
FORT FAIRFIELD UTILITIES DISTRICT	MILO WATER DISTRICT	SEDGWICK ELEMENTARY SCHOOL	
FORT KENT WATER DEPT.	MONMOUTH WATER ASSOCIATION	SNOW POND RESIDENTIAL CARE CENTER	
FRIENDLY VILLAGE OF GORHAM MHP	MONSON UTILITIES DISTRICT	SOLON WATER DISTRICT	
FRYE ISLAND, TOWN OF	MOSCOW WATER DISTRICT	SOUTH BERWICK WATER DISTRICT	
FRYEBURG WATER COMPANY	MOUNT DESERT WATER DISTRICT	SOUTH FREEPORT WATER DISTRICT	
FT. FAIRFIELD UTILITIES DISTRICT	MSAD # 58, PHILLIPS MIDDLE SCHOOL	SOUTH SLOPE MOBILE HOME ESTATES	
	MSAD # 61, LAKE REGION HIGH SCHOOL	SOUTHWEST HARBOR WATER	
		DEPARTMENT	

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