Working Together for Safe Drinking Water

Drinking Water Construction Project Report 2009

with funding from the
American Recovery and Reinvestment
Act of 2009 & Drinking Water
State Revolving Fund

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services

John E. Baldacci, Governor Brenda M. Harvey, Commissioner

Introduction

Roger L. Crouse, P.E.

Dear Readers,

The State of Maine Drinking Water Program received $19.5 million from the American Reinvestment and Recovery Act of 2009 (ARRA) to invest in public water system infrastructure improvements. This document highlights the tremendous benefits Maine has realized by leveraging existing funding sources and rapidly funding approximately $40 million worth of infrastructure improvements. This effort allowed our Program to make essential public health improvements and put people to work at a time of great need.

Our thanks go to our Congressional Delegation for their support of ARRA, to Governor Baldacci and the Legislature for their continued support of our Drinking Water State Revolving Fund, to consultants, public water system operators and to contractors for their ability to begin work quickly on these projects.

A special thanks to the dedicated staff at the Department of Health and Human Services Drinking Water Program (DWP) and the Maine Municipal Bond Bank. The support of Environmental Protection Agency Region 1 staff in Boston was also instrumental in assisting Maine in leading the Nation in project commitments and spending.

Yours for Safe Drinking Water,

Roger L. Crouse, P.E.
Director, Maine CDC Drinking Water Program

"For Mick Construction, this project came at a time when we really needed the work. It was the first big project (where) we were low bidder and it didn't come until June. This allowed us to bring back four people from winter layoff and keep them busy through November 2009."

-Steve Miller, P.E., Mick Construction

"This investment will create more jobs, and improve public health and safety, but it also promotes economic development."

-Governor John E. Baldacci
April 10, 2009

"This project would definitely not have been undertaken in 2009 without ARRA funds."

-Wes Haskell, Assistant General Manager at Bangor Water District

Table of Contents

"Critical projects in Maine's infrastructure are improving quality of life and commerce throughout the State, providing good paying jobs."

-Governor John E. Baldacci
June 29, 2009

"We are pleased to work with the Obama Administration, our Maine Congressional Delegation and the Maine Legislature to ensure that federal Recovery Act funds have the desired impact of creating jobs and improving our health and infrastructure."

-Governor John E. Baldacci
April 10, 2009

Executive Summary

The American Recovery and Reinvestment Act of 2009 (ARRA) provided an additional $19.5 million towards public health improvements in Maine public water systems. ARRA also provided a rapid infusion of capital which created or retained needed jobs across the State of Maine.

On February 17, 2009, President Barack Obama signed ARRA into law. Nationally, the Drinking Water State Revolving Fund (DWSRF) received $2 billion, of which Maine received $19.5 million. Public water systems across the State submitted over $111 million worth of project requests in 2009.

The Maine Department of Health and Human Services (DHHS) Drinking Water Program has successfully managed the DWSRF since 1997. The DWSRF was created by Congress as part of the 1996 amendments to the federal Safe Drinking Water Act. Each State must provide a 20 percent State Match, in order to access the annual federal grants (ARRA funding did not require State Match). As of December 31, 2009, Maine DHHS has provided approximately $150 million in loans and grants to public water systems in Maine. The State Match investment over the 13-year period has been $21.7 million.

In calendar year 2009, DHHS combined the $19.5 million in ARRA funding with $20 million in funding available through the regular DWSRF program, in order to commit approximately $40 million to public water systems across the State in six months.

Special provisions of the ARRA funding required that 20 percent be used to fund "green" infrastructure projects that either reduced energy consumption or conserved water. Maine DHHS was able to find qualifying "green" projects within the highest priority projects so a separate solicitation for "green" projects was unnecessary.

The ARRA also required that at least 50 percent of the ARRA grant be in the form of "additional subsidies," such as grants. Because ARRA was combined with regular DWSRF funds, the Maine DHHS was able to provide every water system with at least a 30 percent grant. Systems historically receiving grants through Maine's disadvantaged system program received a larger grant: up to 75 percent.

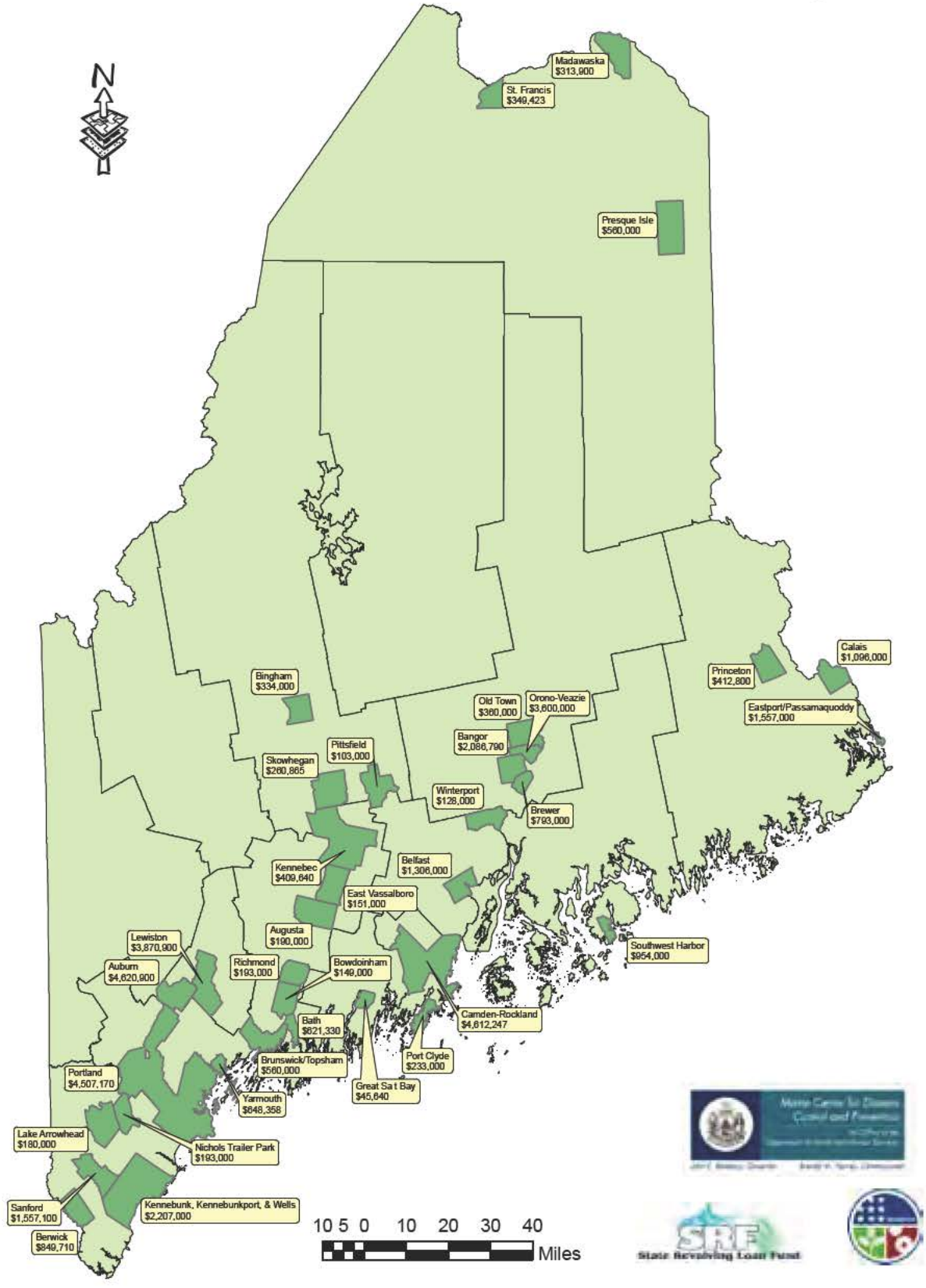
Because of the urgency to create/retain jobs quickly, ARRA included a goal of having at least 50 percent of the funds under contract within 120 days (June 17, 2009). To help meet this goal, the Drinking Water Program offered zero-interest loans to all water systems with their projects under contract by July 1, 2009. The incentive worked, and Maine was one of only two DWSRF programs nationally to meet the June 17, 2009 goal.

All ARRA funds not under contract by February 17, 2010 would be reallocated to other States. Because of the interest incentive program and the decision to blend regular DWSRF money with ARRA, Maine achieved the statutory requirement of having all funds under contract on August 24, 2009 – almost six months early.

By the February 17, 2010 deadline, Maine continued to lead the nation by having 83 percent of the ARRA funds spent.

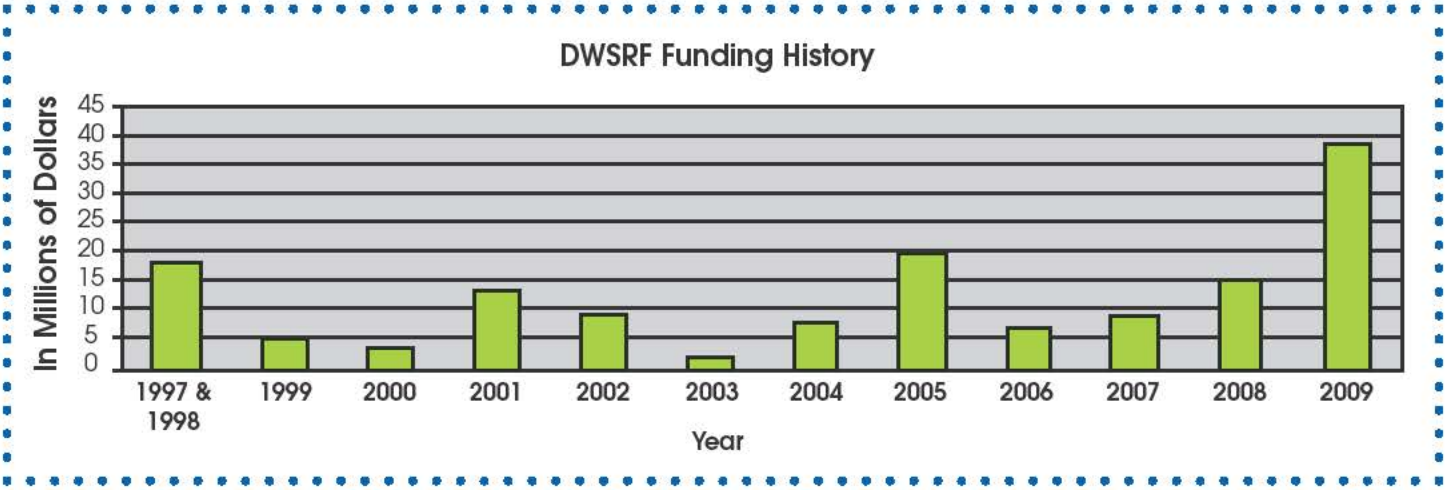
ARRA at work

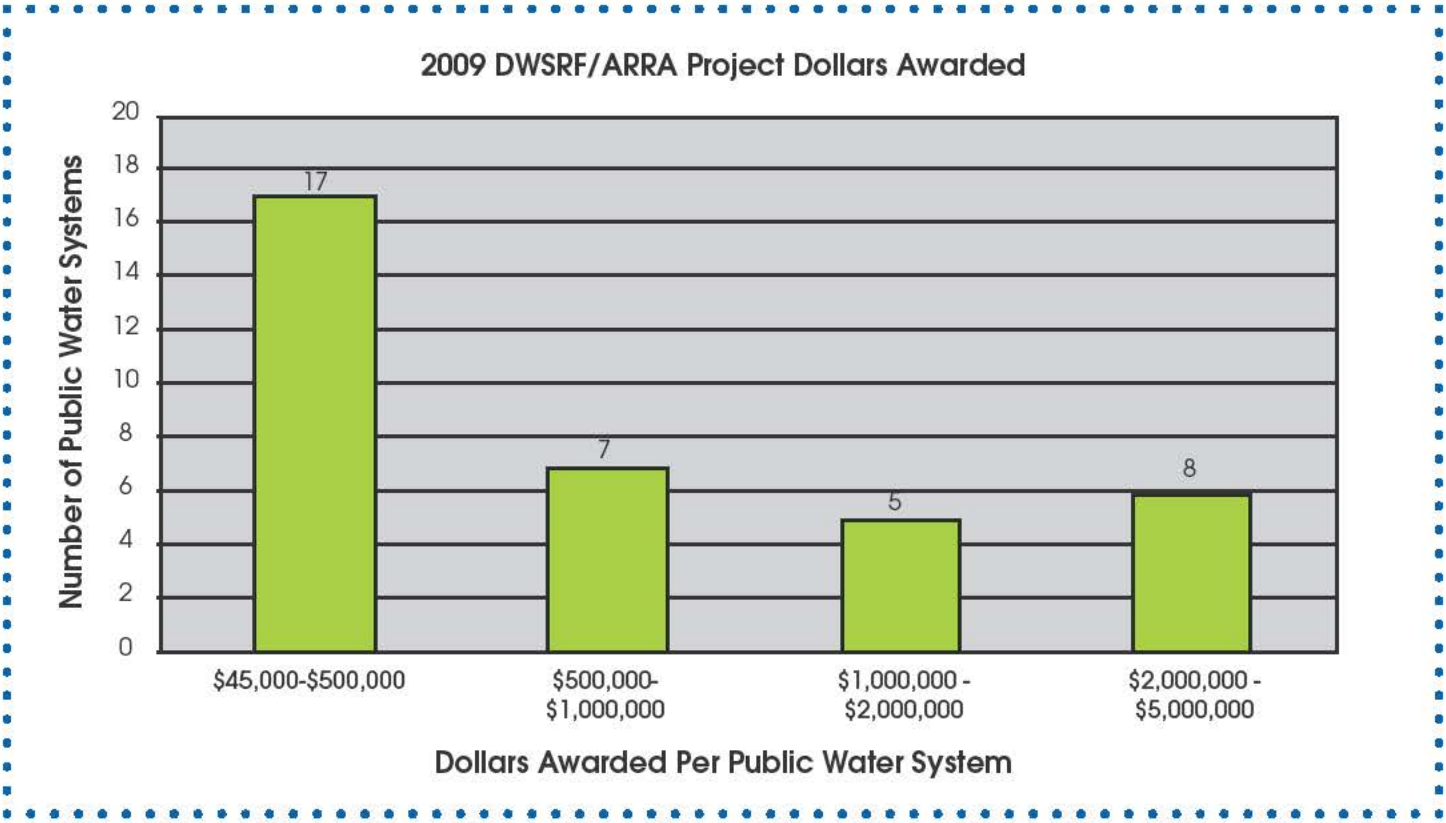
Public Water Systems throughout Maine receiving 2009 DWSRF/ARRA Infrastructure Funding

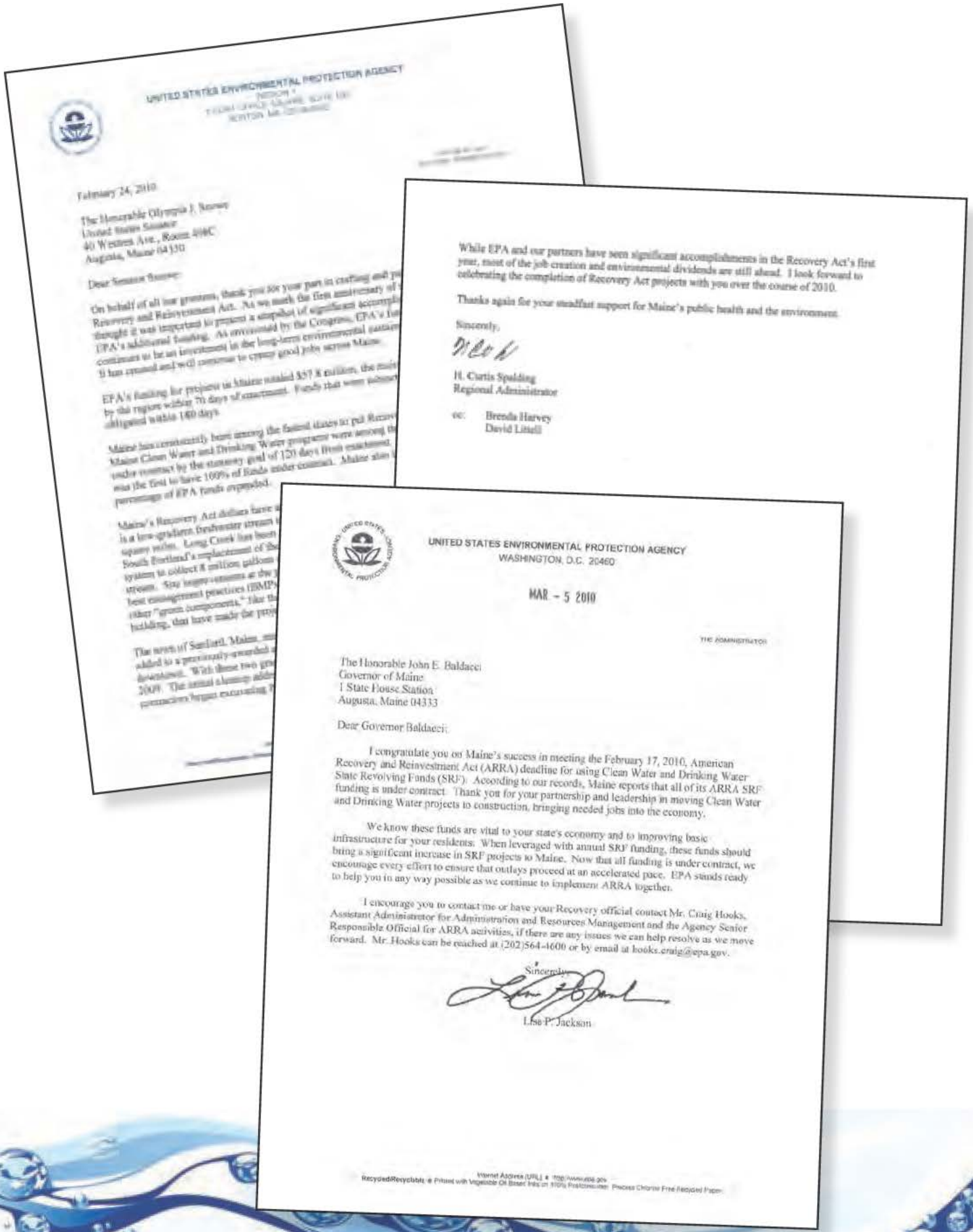


Thanks to ARRA funding...

Thanks to the ARRA funding, Maine was able to commit approximately $40 million to public water systems across Maine for infrastructure improvement projects in 2009. This allocation resulted in a significant increase in funds available to public water systems compared to previous years. As a result of the significant increase in funding, more drinking water improvement projects were completed, improving drinking water quality and safety for people throughout Maine.







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

February 24, 2010

The Honorable Olympia J. Snowe
United States Senator
40 Western Ave., Room 408C
Augusta, Maine 04330

Dear Senator Snowe:

On behalf of all our grantees, thank you for your part in crafting and pa
Recovery and Reinvestment Act. As we mark the first anniversary of
thought it was important to present a snapshot of significant accomplis
EPA's additional funding. As envisioned by the Congress, EPA's fu
continues to be an investment in the long-term environmental sustain
It has created and will continue to create good jobs across Maine.

EPA's funding for projects in Maine totaled $57.8 million, the majo
by the region within 70 days of enactment. Funds that were subsequ
obligated within 180 days.

Maine has consistently been among the fastest states to put Recov
Maine Clean Water and Drinking Water programs were among th
reache contract by the statutory goal of 120 days from enactment.
was the first to have 100% of funds under contract. Maine also h
percentage of EPA funds expended.

Maine's Recovery Act dollars have a
is a low-gradient freshwater stream t
square miles. Long Creek has been
South Portland's replacement of the
system to collect 8 million gallons
stream. Six large-scale projects at the
best management practices (BMPs
other "green components," like th
building, that have made the proj

The town of Sanford, Maine, rec
added to a previously-awarded
downtown. With those two gra
2009. The initial clearing activ
contractors began excavating

While EPA and our partners have seen significant accomplishments in the Recovery Act's first year, most of the job creation and environmental dividends are still ahead. I look forward to celebrating the completion of Recovery Act projects with you over the course of 2010.

Thanks again for your steadfast support for Maine's public health and the environment.

Sincerely,

H. Curtis Spalding
Regional Administrator

cc: Brenda Harvey
David Littell

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR - 5 2010

THE ADMINISTRATOR

The Honorable John E. Baldacci
Governor of Maine
1 State House Station
Augusta, Maine 04333

Dear Governor Baldacci:

I congratulate you on Maine's success in meeting the February 17, 2010, American Recovery and Reinvestment Act (ARRA) deadline for using Clean Water and Drinking Water State Revolving Funds (SRF). According to our records, Maine reports that all of its ARRA SRF funding is under contract. Thank you for your partnership and leadership in moving Clean Water and Drinking Water projects to construction, bringing needed jobs into the economy.

We know these funds are vital to your state's economy and to improving basic infrastructure for your residents. When leveraged with annual SRF funding, these funds should bring a significant increase in SRF projects to Maine. Now that all funding is under contract, we encourage every effort to ensure that outlays proceed at an accelerated pace. EPA stands ready to help you in any way possible as we continue to implement ARRA together.

I encourage you to contact me or have your Recovery official contact Mr. Craig Hooks, Assistant Administrator for Administration and Resources Management and the Agency Senior Responsible Official for ARRA activities, if there are any issues we can help resolve as we move forward. Mr. Hooks can be reached at (202)564-4600 or by email at hooks.craig@epa.gov.

Sincerely,

Lisa P. Jackson

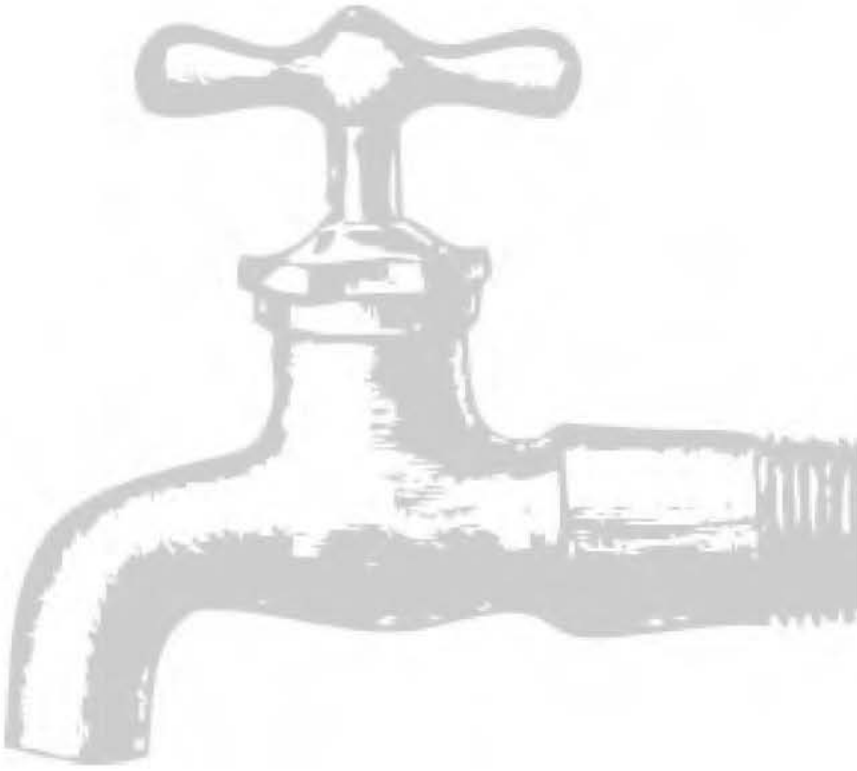
Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper

Projects at a Glance

Water System	Towns Served	Description	Total Cost
Aqua Maine Inc- Skowhegan Division	Skowhegan	Water Main Replacement	$260,865.00
Aqua Maine Inc- Camden & Rockland Division	Camden, Owls Head, Rockland, Rockport, Warren, Thomaston	New Treatment System & New Water Storage Tank	$4,612,247.00
Auburn Water District	Auburn	Water Main Rehabilitation & Improvements	$500,000.00
Auburn Water District/ Lewiston Water & Sewer Division	Auburn, Lewiston	Design & Construction of New Water Treatment Facility	$7,991,800.00
Bangor Water District	Eddington, Orrington, Bangor, Veazie, Hermon, Hampden, Clifton	Water Storage Tank Replacement & Conceptual Design Study	$2,086,790.00
Bath Water District	Brunswick, Woolwich, West Bath, Wiscasset, Bath	Water Main Dead End Elimination and Looping	$621,330.00
Belfast Water District	Belfast, Northport	Water Main Replacement	$1,306,000.00
Berwick Water Department	Berwick	Water Main Replacement	$849,710.00
Bingham Water District	Bingham, Moscow	Water Main Replacement & Looping	$334,000.00
Bowdoinham Water District	Bowdoinham	New Well	$149,000.00
Brewer Water Department	Brewer, Clifton, Eddington, Holden, Orrington	Interconnection with Adjacent Water System & Installation of Redundant Intake	$793,000.00
Brunswick / Topsham Water District	Brunswick, Topsham	Treatment Facility Upgrades	$560,000.00
Calais Water Department	Calais	Water Main Replacements	$1,096,000.00
East Vassalboro Water Company LLC	Vassalboro	New Water Supply Source	$151,000.00
Great Salt Bay Sanitary District	Damariscotta, Newcastle	Water Main Replacement	$45,640.00
Greater Augusta Utility District	Augusta, Chelsea, Manchester, Vassalboro, Winthrop	Water Main Replacement at Clifton St	$190,000.00
Kennebec Water District	Fairfield, Waterville, Vassalboro, Oakland	Water Main Replacement	$409,640.50
Kennebunk, Kennebunkport, & Wells Water District	Kennebunk, Kennebunkport, Wells	Water Main Replacement	$2,207,000.00
Lake Arrowhead Community, Inc.	Waterboro	Water Main Replacement	$180,000.00
Madawaska Water District	Madawaska	Replacement of Booster PS & PSV Equipment	$313,900.00
Nichols Trailer Park	Hollis	New Water Supply and Treatment System	$193,000.00
Old Town Water District	Old Town	Treatment Facility Upgrades	$360,000.00
Orono-Veazie Water District	Orono	Water Treatment Plant Upgrades	$3,600,000.00
Passamaquoddy Water District	Eastport, Perry	Treatment/Groundwater Source Study & Water Main Replacements	$1,557,000.00
Pittsfield Water Department	Pittsfield	Installation of Finished Water Pump at Treatment Plant	$103,000.00
Port Clyde Water District	St. George	New Booster Station	$233,000.00
Portland Water District	Falmouth, Raymond, Scarborough, South Portland, Standish, Cape Elizabeth, Cumberland, Gorham, Windham, Westbrook, Portland	Water Main Replacements & New Water Storage Tank	$4,507,170.00
Presque Isle Water District	Presque Isle	Design and Installation of New Treatment System	$560,000.00
Princeton Water District	Princeton	Water System Consolidation & Elimination of Unfiltered Surface Water Source	$412,800.00
Richmond Utilities District	Richmond	Backup Well & Tank Circulation	$193,000.00
Sanford Water District	Sanford	Tank Mixing, Storage Tank Disinfection, Pump Station Upgrades, & Water Main Replacements	$1,557,100.00
Southwest Harbor Water Department	Southwest Harbor	Add Aeration Treatment, Movement of Intake, & Installation of Emergency Generator	$954,000.00
St. Francis Water District	St. Francis	New Water Supply Source	$349,423.00
Winterport Water District	Winterport	Install Backup Well	$128,000.00
Yarmouth Water District	North Yarmouth, Yarmouth	Water Main Replacement	$648,358.12

ARRA Milestones

One goal of ARRA was to have at least 50 percent of the funds under contract within 120 days (June 17, 2009). Not only did Maine meet this goal, but it was one of only two DWSRF programs nationally to meet this goal. Additionally, Maine was the first state in the nation to successfully have 100 percent of ARRA funds under contract, to both create jobs and complete needed projects around the state.



December 8, 2008 – Maine DWP Solicits Project Applications

January 9, 2009 – Maine DWP receives $111 million in Project Requests

February 17, 2009 – ARRA signed by President Obama

April 8, 2009 – EPA Awards Maine $19.5 Million ARRA Grant – First in New England

June 17, 2009 – Maine DWP achieves ARRA goal of having at least 50% of projects under contract within 120 days

August 24, 2009 – Maine DWP is the first program in the nation to have all DWSRF ARRA Projects under contract

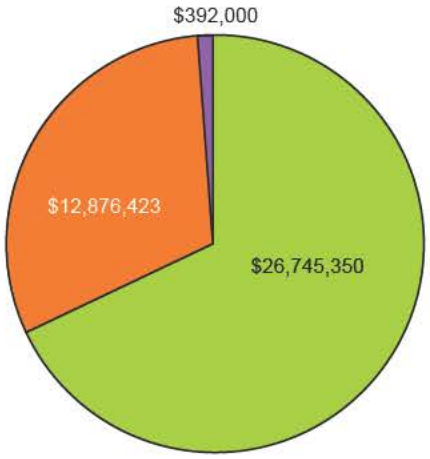
February 17, 2010 – ARRA one-year anniversary. Maine DWP leads the Nation in percentage of ARRA spent at 83%

ARRA Provisions & Opportunities

The $19.5 million in additional funding received from ARRA for drinking water system improvement projects provided unique provisions and opportunities for the 2009 construction season. For one, a portion (20%) of the ARRA funding was required to be spent on "Green Reserve" projects, or those that demonstrate energy efficiency, water efficiency, or are environmentally innovative. The ARRA funding also allowed for all water systems to receive at least 30% of their original requested loan amount as a grant, resulting in more affordable funding for water systems and their customers. Another unique benefit was the creation of over 280 full-time equivalent jobs throughout Maine.

Affordable Funding to Maine Utility Ratepayers

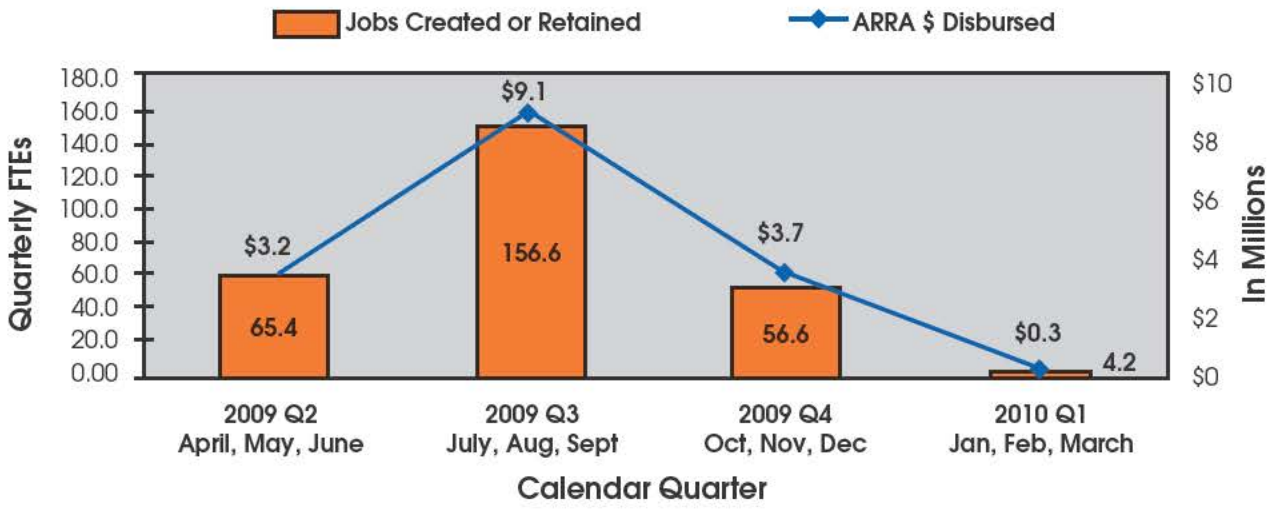
All public water systems completing projects received at least 30% of their originally requested loan amount as a grant, which resulted in nearly $13 million of savings to ratepayers. The majority of 2009 DWSRF/ARRA loans were awarded at 0% interest, which, compared to a 5% rate, amounted to a total savings to ratepayers over the standard 20-year loan period of $23.8 million.



$40,013,773	Total
$26,745,350	Zero Interest Loans
$12,876,423	Grant/Loan Forgiveness
$392,000	Other Loans

Job Creation

Between April 2009 and March 2010, $16.3 million in ARRA stimulus funds were disbursed to Maine public water systems for design and/or construction of drinking water infrastructure improvements. These funds were responsible for creating over 280 quarterly fulltime equivalent (FTE) jobs directly working on stimulus-funded projects. This chart depicts the breakdown of data by quarter.



Green Reserve Projects

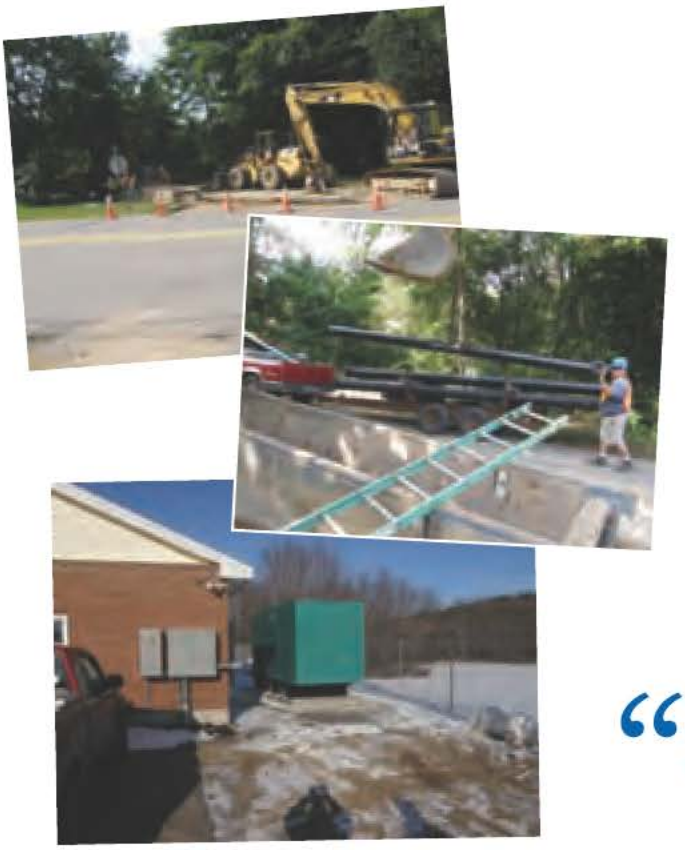
As a requirement of the 2009 ARRA, the Maine Drinking Water Program needed to identify at least $3.9 million in spending on "Green Reserve" (20% of $19.5 million).

The term "Green Reserve" applies to water projects that demonstrate energy efficiency, water efficiency or are environmentally innovative. Examples include new or rehabilitated facilities with components, such as passive solar or geo-thermal heating systems, premium efficiency pumps and motors, variable frequency drives, etc.

The Maine DWP was able to identify projects meeting the green reserve criteria in the amount of $4.5 million. Significant Green Reserve projects in 2009 included the Aqua Maine Camden/Rockland Ultraviolet Light Water Treatment Plant and the Lewiston-Auburn Ultraviolet Light Water Treatment Plant. The following projects were identified, in part, as meeting the "Green Reserve" criteria:

Public Water System	Project Description	Green Components	Total Project	Green Component
Aqua Maine Camden/ Rockland	UV Treatment Plant	Lagoon Recycle/residuals handling system, premium eff. Motor pumps and VFDs, high-efficiency heating system, passive solar, heat recovery, insulated masonry	$3,621,868	$902,800
Auburn Water District & City of Lewiston	UV Treatment Plant	Premium Efficiency Motors/Pump/VFDs, Zero Energy Strainer, Master Metering, High Eff. Heating System, High Efficiency HVAC, Low-Flow Plumbing Fixtures, Clean Fuel Generator, motion lighting	$7,991,800	$1,875,000
Bangor Water District	Conceptual Study LT2	Energy Efficiency Study and UV Concept Design for PS Assessment	$236,000	$236,000
Bangor Water District	Water Storage Tank	Low Energy/Solar Mixing System	$1,850,790	$35,000
Lake Arrowhead Community	Water Main Replacement	Reduction of Leaks with pipe replacement for water savings and reduced pumping costs	$180,000	$180,000
Madawaska Water District	Replace Booster PS & PSV Equipment	Premium Efficiency Motors/Pump/VFDs	$313,900	$44,000
Orono-Veazie Water District	Water Treatment Plant Upgrades	Recycle/residuals handling system, high efficiency heating system, high efficiency Lighting, upgrade controls and VFDs for efficiency	$3,600,000	$514,000
Pittsfield Water Department	Installation of Finished Water Pump at Water Treatment Facility	Premium Efficiency Motors/Pump/VFDs	$103,000	$103,000
Presque Isle Water District	UV Treatment Plant	Low Pressure HO UV Lamps	$560,000	$300,000
Southwest Harbor Water Dept.	Treatment - Add Aeration, move intake	Premium Efficiency Blowers & VFDs for Aeration	$554,000	$310,000
		TOTALS:	**$19,011,358**	**$4,499,800**

Berwick Water Department



Towns Served: BERWICK

Population Served: 2,125

Contractor: Mick Construction

Engineer: Civil Consultants

DWSRF/ARRA Funds Contributed to Project: $849,710

This project enabled Berwick Water Department to install a new diesel-powered generator that can provide power for a week of normal water treatment plant operation, without refueling and turns on automatically if the power fails. Berwick can keep producing, treating, and delivering water to its customers now, even in the event of a power outage. Berwick also replaced water mains and added new fire hydrants along nine streets, totaling approximately 6,000 feet. Galvanized iron, copper, and cast iron water mains were replaced with ductile iron water mains. Age, deterioration, and community growth made water main replacement, updates, and hydrant additions a necessary undertaking.

> "Our power was out for 37 hours, but we were filtering water and pumping it out like it was a normal day."
>
> *-Nelson Begin, Operator at Berwick Water Department referring to a recent power outage after the generator was installed and placed on standby*

Sanford Water District

Towns Served: SANFORD

Population Served: 15,000

Contractors: Foglio Inc, Apex

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Projects: $1,557,100

Sanford Water District utilized 2009 DWSRF/ARRA funds to replace approximately 2,200 feet and extend approximately 3,000 feet of water mains within the District. The project eliminates a dead end by looping the High Street water main to the main along Alfred Road, improving water quality, pressure, and fire-flow protection. Sanford Water District is in the process of completing a second project to construct a small addition to the existing Old Mill Pumping Station and install an emergency power propane generator. The additions to the Old Mill Pumping Station will improve chemical storage and containment at the District and will help to reduce operational costs. Additionally, tank mixing systems and Chloro-Float in-tank disinfection systems will be installed in two storage tanks to address water quality issues created, in part, by stagnant and stratified water.

Aqua Maine Inc. Camden & Rockland Div.

Towns Served: CAMDEN, OWLS HEAD, ROCKLAND, ROCKPORT, WARREN, THOMASTON

Population Served: 18,185

Contractors: Caldwell, Apex

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Projects: $4,612,247

The Camden & Rockland Division of Aqua Maine is utilizing ARRA and DWSRF funds to design and construct a membrane filtration treatment system at the Mirror Lake disinfection facility in Rockport. Adding membrane filtration treatment will enable Aqua Maine to comply with new regulations concerning specific treatment for Cryptosporidium, a chlorine-resistant microbiological pathogen, and new restrictions on disinfection byproducts within the distribution system. The membrane filtration treatment provides additional public health protection and improved aesthetic water quality. As a result of the additional treatment, facility redundancy and reliability will also be improved to ensure that system demands are met during emergencies. Additionally, Aqua Maine completed a project for the design and construction of a new elevated water storage tank to replace an existing elevated water storage tank, known as the Thomaston tank. The Thomaston tank was constructed in 1927, and was last painted in 1987. After 80 years of useful life, the tank was in need of major renovation or replacement. The new 400,000 gallon replacement water storage tank was built adjacent to the old Thomaston Tank.

"Our membrane filtration project at Mirror Lake is the first large-scale application of membrane filtration technology in Maine. Membrane filtration is less expensive to own and less expensive to operate than other filtration technologies. The technical staff at the Drinking Water Program have been very supportive of our use of membrane technology and the project approval process has been very efficient as a result."

-Rick Knowlton, Vice President at Aqua Maine

Bowdoinham Water District

Towns Served: BOWDOINHAM

Population Served: 675

Contractor: Boart Longyear

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $149,000

Bowdoinham Water District was able to install a new well to use as a backup, or alternative well, using 2009 DWSRF/ARRA funds. The existing well was originally installed in 1959, when the Bowdoinham Water District was first established. In recent years, the District has experienced pump problems related to the deteriorating condition of the well. This project allowed Bowdoinham to install a new well as an alternative water source to draw from, as well as redevelop the existing well. The project enables the District to conduct maintenance on both wells, without interrupting water service to its customers.

Auburn Water District/Lewiston Water & Sewer Division

Towns Served: AUBURN, LEWISTON

Population Served: 39,071

Contractor: CDM

Engineer: CDM

DWSRF/ARRA Funds Contributed to Projects: $7,991,800

This project provides funding to support a joint venture between Auburn Water District and Lewiston Water and Sewer Division for the final design and construction of an Ultra-Violet (UV) Light Treatment System at Lake Auburn, the drinking water source for both Auburn and Lewiston. This project is intended to meet requirements of the Long Term 2 Enhanced Surface Water Treatment Rule. Installation of the UV Treatment System will improve the drinking water quality for Auburn and Lewiston and provide additional protection from disease-causing microorganisms and contaminants that can form during drinking water treatment.

Bangor Water District

Towns Served: ORRINGTON, HERMON, HAMPDEN, BANGOR, EDDINGTON, CLIFTON, VEAZIE

Population Served: 26,500

Contractor: Pre-Load Construction

Engineers: Wright-Pierce, Black & Veatch

DWSRF/ARRA Funds Contributed to Projects: $2,086,790

Two projects for Bangor Water District utilized ARRA/DWSRF funding in 2009. The first project provides funding support for Bangor Water District to complete a conceptual design study to meet the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule, to further protect against disease-causing microorganisms and contaminants that can form during drinking water treatment. The study will evaluate treatment alternatives, such as Ultra-Violet (UV) disinfection for cryptosporidium inactivation, pump station modifications for the additional treatment, and intake location evaluation to improve water quality. The second project for Bangor Water District involves replacing one steel water storage tank over 50 years old with a new 3.8 million gallon wire-wound, pre-stressed concrete tank. The new concrete tank is expected to significantly lower the maintenance costs, as compared with maintaining the existing steel tank. The new tank will also contain a mixing system installed to improve water quality. The new tank is being constructed in the same location as the old steel tank, on Essex Street.

East Vassalboro Water Company LLC

Towns Served: VASSALBORO

Population Served: 205

Contractor: Bowie Bros.

Engineer: AE Hodsdon Engineering

DWSRF/ARRA Funds Contributed to Project: $151,000

East Vassalboro will utilize 2009 DWSRF/ARRA funds to install a new well to supplement the existing two low-yielding wells. The project will include a new well and pump, land acquisition for wellhead protection, and security fencing for the proposed and existing wells.

Great Salt Bay Sanitary District

Towns Served: DAMARISCOTTA, NEWCASTLE

Population Served: 1,673

Contractor: Penta Corp.

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $45,640

Great Salt Bay Sanitary District undertook a project to replace approximately 800 linear feet of 6-inch diameter, 1896 vintage, cast iron water main with 8-inch cement-lined ductile iron water main on Church Street in Damariscotta. The existing cast iron pipe is believed to be joined with lead, and replacement helps the Water District address lead exceedances. In addition, this work was performed in conjunction with storm drain replacement and road reconstruction.

Port Clyde Water District

Towns Served: ST. GEORGE

Population Served: 330

Contractor: Penobscot Co.

Engineer: Dirigo Engineering

DWSRF/ARRA Funds Contributed to Project: $233,000

Port Clyde Water District constructed a booster pump station at their storage tank site. This booster pump station provides all customers with adequate water pressure without the need for individual booster pumps. This project especially helps those people living on Marshall Point Road and Drift Inn Road who had been experiencing low water pressure problems. The new pump station also enables better circulation in the storage tank, improving water quality.

Brewer Water Department

Towns Served: BREWER, CLIFTON, EDDINGTON, HOLDEN, ORRINGTON

Population Served: 8,982

Contractor: Lou Silver, Inc

Engineer: Mike Riley

DWSRF/ARRA Funds Contributed to Projects: $793,000

Brewer Water Department embarked on two major projects using 2009 DWSRF/ARRA funds. The first one involved the installation of an interconnection facility along Route 9 in Eddington, which allows for the transfer of up to three million gallons of water per day between the Brewer water system and the Bangor water system during emergencies. This new interconnection benefits both the Brewer and Bangor water systems, allowing a backup source of water for each system, in the event of an emergency. The second project involves the installation of a second raw water intake and screen to improve raw water quality, consistency, and treatability within the Brewer Water Department. The new 24-inch diameter intake will extend from the existing pump station approximately 550 feet into the pond. The intake will be designed to minimize the impact on aquatic life.

Auburn Water District

Towns Served: AUBURN

Population Served: 15,963

Contractor: W. Walsh Company

Engineer: CDM

DWSRF/ARRA Funds Contributed to Project: $500,000

With ARRA and DWSRF funds, the Auburn Water District was able to complete a project that improved and enhanced their water main transmission and distribution piping. This project cleaned and cement-lined over 5,700 feet of existing cast iron piping, eliminating low pressure and water quality issues.

Belfast Water District

Towns Served: BELFAST, NORTHPORT

Population Served: 4,328

Contractor: George C. Hall & Sons

Engineer: Dirigo Engineering

DWSRF/ARRA Funds Contributed to Project: $1,306,000

Belfast Water District completed a project to upgrade existing water mains along Route 1 South and Perkins Road in Belfast. Old, undersized cast iron water mains were replaced with new ductile iron.

Richmond Utilities District

Towns Served: RICHMOND

Population Served: 1,370

Contractor: Boart Longyear

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to $193,000

A new well was installed in Dresden to provide a redundant water supply well for Richmond Utilities District. This new well improves tank circulation and water quality in two existing water storage standpipes and increases system reliability and redundancy.

Presque Isle Water District

Towns Served: PRESQUE ISLE

Population Served: 5,825

Contractor: Penta Corp.

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $560,000

The Presque Isle Water District is working on a project to design and install an Ultra-Violet (UV) water disinfection system to improve drinking water quality for Presque Isle. The new treatment system will provide additional protection from disease-causing microorganisms and disinfection byproducts, contaminants that can form during drinking water treatment.

Southwest Harbor Water Dept.

Towns Served: SOUTHWEST HARBOR

Population Served: 2,380

Contractor: Sargent Construction

Engineer: Olver Associates

DWSRF/ARRA Funds Contributed to Projects: $954,000

Funding support for this project will allow Southwest Harbor Water Department to make water treatment facility upgrades and improvements to their raw water intake in Long Pond. Treatment facility upgrades will include the addition of an aeration system to help reduce disinfection byproduct levels. Also, the raw water intake will be extended to reduce elevated turbidity levels during storm events, and to improve water quality. This project also enhances water system reliability with the installation of an emergency power generator, to help keep operations running in the event of a power outage. These changes are also expected to increase operational efficiency and reduce chemical usage at the Southwest Harbor Water Department.

Bath Water District

Towns Served: BRUNSWICK, WOOLWICH, WEST BATH, WISCASSET, BATH

Population Served: 9,280

Contractor: Ray Labbe & Sons

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $621,330

Bath Water District used 2009 ARRA and DWSRF funds to complete a project to connect two "dead ends" within their water system piping, improving water quality. The connection, by eliminating "dead ends" and providing looping within the water system, also improved water flow for fire protection within the District.

Lake Arrowhead Community Inc.

Towns Served: WATERBORO

Population Served: 2,750

Contractor: In-house

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $180,000

Using 2009 ARRA/DWSRF funds, Lake Arrowhead is replacing water piping from Old Country Way to their water storage tank on Caribou Drive in Limerick. Lake Arrowhead describes this water main as the most vulnerable to leaks, so replacing this piping will help improve overall water system reliability.

Nichols Trailer Park

Towns Served: HOLLIS

Population Served: 75

Contractor: Littlefield Construction

Engineer: Snowden Consulting

DWSRF/ARRA Funds Contributed to Project: $193,000

Radionuclide levels found in the groundwater source at Nichols Trailer Park exceeded acceptable health levels. As a result, the park is developing a new well and installing treatment to remove uranium, arsenic, and radon to address the health concerns. The project will also include the construction of a new treatment building and approximately 3,000 gallons of water storage.

Winterport Water District

Towns Served: WINTERPORT

Population Served: 760

Engineer: Dirigo Engineering

DWSRF/ARRA Funds Contributed to Project: $128,000

This project will provide a back-up well for the Winterport water system. The back-up well was recommended in a previous engineering report, to allow for servicing of the existing well when needed, without disrupting continuous water service.

Kennebunk, Kennebunkport & Wells Water District

Towns Served: KENNEBUNK, KENNEBUNKPORT, WELLS

Population Served: 29,963

Contractor:

Engineer: In-house

DWSRF/ARRA Funds Contributed to Project: $2,207,000

This project will replace approximately 9,820 feet of unlined 10 inch diameter cast iron water main with 16-inch diameter PVC pipe along Old King's Highway and Sand Point Road in Kennebunkport. In addition, hydrants, lateral side mains, and service connections (district owned portions) will be replaced.

Portland Water District

Towns Served: FALMOUTH, RAYMOND, SCARBOROUGH, SOUTH PORTLAND, STANDISH, CAPE ELIZABETH, CUMBERLAND, GORHAM, WINDHAM, WESTBROOK, PORTLAND

Population Served: 136,945

Contractors: Gorham Sand and Gravel, R.J. Grondin & Sons, Foglio, Inc., Shaw Brothers, Marcel A. Payeur, Peters Construction, Storey Brothers, Glidden Excavating & Paving, Dearborn Construction

Engineer: In-House

DWSRF/ARRA Funds Contributed to Projects: $4,507,170

This effort consisted of multiple projects completed within the Portland Water District service area and replaced more than 22,200 feet of old water mains in various locations. Old galvanized and unlined cast iron water mains were replaced with cement-lined ductile iron pipe. These improvements reduced system maintenance expense and enhanced water quality and service reliability to numerous commercial, industrial, and residential customers. The construction included work on a number of streets including William Clark Drive, Stroudwater, Pleasant, Spring, Main, Berkley, and East Bridge Streets in Westbrook. Work also took place on Pond Cove in Cape Elizabeth and Elizabeth Street in Gorham. Work within Portland neighborhoods included Brighton Avenue, Ray, Hancock, Middle, Read, and Gilman Streets, as well as Vannah Avenue. Many of the projects were completed in conjunction with other municipal street improvement projects. In addition to the various water main improvement projects, Portland Water District also completed the painting and rehabilitation of the 500,000 gallon welded steel water storage tank constructed in 1951, located in Standish. The project included interior and exterior tank recoating with epoxy, tank base repairs to spalling concrete, and adding a rechlorination/recirculation system.

Kennebec Water District

Towns Served: FAIRFIELD, WATERVILLE, VASSALBORO, OAKLAND

Population Served: 21,500

Contractor: T.W. Clark

Engineer: In-House

DWSRF/ARRA Funds Contributed to $409,640.50

Kennebec Water District completed a project to replace approximately 2,945 feet of heavily tuberculated water main along Water Street in Waterville. Under sizing and heavy tuberculation in the old water main contributed to problems of inadequate flow and periodic water quality issues. Replacement of the main addressed both of these issues.

Brunswick & Topsham Water District

Towns Served: BRUNSWICK, TOPSHAM

Population Served: 16,988

Contractor: T. Buck Construction

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $560,000

To reduce disinfection by-products as required by the Surface Water Treatment Rule, the Brunswick & Topsham Water District will be constructing an ammonia-feed treatment system to implement the use of chloramines.

Yarmouth Water District

Towns Served: NORTH YARMOUTH, YARMOUTH

Population Served: 7,430

Contractor: R.J. Grondin & Sons

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $648,358.12

Yarmouth Water District replaced approximately 2,700 feet of an old, undersized and unlined cast iron water main located on Portland Street between Main Street and US Route 1. The old main was replaced using new 12-inch cement lined ductile iron pipe. Additionally, six fire hydrants, eight mainline gate valves, and 33 services were also replaced.

> "Interaction with the State was very good. They were quick and thorough with all of our work. Everyone pulled together well."
>
> *-Robert MacKinnon, Superintendent at Yarmouth Water District*

Passamaquoddy Water District

Towns Served: EASTPORT, PERRY

Population Served: 1,870

Contractor: S.H. Bridges Construction

Engineer: A.E.Hodsdon Consulting

DWSRF/ARRA Funds Contributed to Projects: $1,557,000

Passamaquoddy Water District is utilizing 2009 ARRA and DWSRF funds to replace 8,100 feet of old water mains and to conduct a study to determine if treatment system changes are needed to meet compliance with disinfection byproducts regulations. The replacement of the old water mains will help to improve water quality and fix low pressure, fire protection, and freeze-up issues. The study will help determine how best to protect customers from contaminants that can form during drinking water treatment, known as disinfection byproducts.

Greater Augusta Utility District

Towns Served: AUGUSTA, CHELSEA, MANCHESTER, VASSALBORO, WINTHROP

Population Served: 14,450

Contractor: D & C Construction

Engineer: Woodard & Curran

DWSRF/ARRA Funds Contributed to Project: $190,000

Greater Augusta Utility District replaced approximately 1,350 feet of water main and services on Eastern Avenue, beginning at Hospital Street and proceeding west to Arsenal Street. The existing cast iron, problematic water main was installed prior to 1906. This project is part of a full roadway reconstruction project done by USVA Togus and significant savings occurred by replacing this water main in conjunction with the road reconstruction project.

Princeton Water District

"There was very good cooperation between the funding agencies in helping a new District get through the construction project."

-Tim Sawtelle, Dirigo Engineering

Towns Served: PRINCETON

Population Served: 50

Contractor: S.E. MacMillan

Engineer: Dirigo Engineering

DWSRF/ARRA Funds Contributed to Project: $412,800

2009 DWSRF/ARRA funds are being used to consolidate the Princeton Water Works water system with the Princeton Water District, eliminating an unfiltered surface water supply and providing new distribution lines for these consumers. This effort is part of a larger project that provided safe drinking water to homes with wells contaminated by MTBE, consolidated drinking water service to a senior citizen apartment complex, looped water mains, and replaced aging water lines.

Madawaska Water District

Towns Served: MADAWASKA

Population Served: 2,853

Contractor: Penta Corporation

Engineer: Wright-Pierce

DWSRF/ARRA Funds Contributed to Project: $313,900

Madawaska Water District is replacing the existing, undersized booster station pumping equipment located on 11th Avenue with new and improved equipment. This new equipment is expected to improve water pressure and water system reliability.

"We were able to design the project to be constructed with minimal impact on the District's daily operations."

-Naleen Mayberry, Wright-Pierce

St. Francis Water District

Towns Served: ST FRANCIS

Population Served: 80

Contractor:

Engineer: Woodard and Curran

DWSRF/ARRA Funds Contributed to Project: $349,423

To resolve disinfection byproduct violations related to their surface water source, St. Francis Water District will be completing a project to transition from a surface water source to a ground water source. The project includes installation of raw water transmission mains, a pump house, and a chlorination system.

Pittsfield Water Department

Towns Served: PITTSFIELD

Population Served: 3,143

Contractor: T. Buck Construction

Engineer: Olver Associates

DWSRF/ARRA Funds Contributed to Project: $103,000

The Pittsfield Water Department is undertaking a project to install a second 75 HP vertical turbine finished water pump at their water treatment plant. The new water pump will ensure redundancy and improve service reliability to water customers, including a regional hospital, medical facilities, regional educational center, commercial businesses, as well as numerous residential customers.

Calais Water Department

Towns Served: CALAIS

Population Served: 3,075

Contractors: Sargent Corp, Peasley & O'Halloran

Engineer: Olver Associates

DWSRF/ARRA Funds Contributed to Project: $1,096,000

Calais Water Department is completing a project to replace 1,000 feet of water main on Cleveland Street. This water main replacement project will resolve multiple failures of the existing main during the last two years. Work will be coordinated with sewer infrastructure projects, which are currently being completed on this street. Calais is also completing a second project to replace approximately 3,625 feet of water main on Lafayette, Price, and Poole Streets to improve water pressure, reduce iron contamination, and reduce leak related maintenance.

Aqua Maine Inc. Skowhegan Division

Towns Served: SKOWHEGAN

Population Served: 5,953

Contractor: T.W. Clark, Inc

Engineer: In-house

DWSRF/ARRA Funds Contributed to Project: $260,865

The Skowhegan Division of Aqua Maine is using ARRA and DWSRF funds to replace 1,150 feet of water main piping on Route 201 in Madison. The water main replacement work is being done in conjunction with paving work that the Maine Department of Transportation is doing on Route 201, resulting in coordinated efforts and lower project costs. The replacement of the water main piping will help to improve water quality, fire protection, and system reliability.

Orono-Veazie Water District

Towns Served: ORONO

Population Served: 6,000

Contractor: Penta Corporation

Engineer: Weston & Sampson

DWSRF/ARRA Funds Contributed to Project: $3,600,000

This project provides funding support to the Orono-Veazie Water District to make improvements to their water treatment plant. The project involves replacement of three pressure filters, and an upgrade of three additional pressure filters, piping and controls, chemical feed systems, and connecting a new well to the water system. Additionally, the District will construct a backwash residuals tank, recycling system, and an upgrade of the electrical service to the facility. The project goal is to increase operational efficiency and achieve the requirements of the discharge permit for backwash water.

Old Town Water District

Towns Served: OLD TOWN

Population Served: 8,858

Contractor: T. Buck Construction

Engineer: CES

DWSRF/ARRA Funds Contributed to Project: $360,000

Old Town Water District undertook a project to update their treatment plant on Spring Street. The updates included sandblasting, recoating, and replacing internal plumbing for four steel pressure tanks, restoring them to near new condition. Additionally, the spent greensand inside the existing filter was replaced with a higher flow type greensand, which will lower electrical costs and increase production. Lastly, water piping from the three Spring Street wells was replaced. Replacement of the water piping from these three wells helps eliminate the need to shut down their entire water supply for extended periods of time to make repairs, improving overall water system reliability.

"Biggest Benefit?
Significant, documented, energy savings."

-Frank Kearney,
Superintendent at Old Town Water District

Bingham Water District

Towns Served: BINGHAM, MOSCOW

Population Served: 1,308

Contractor: Joseph Buchannan Construction

Engineer: Dirigo Engineering

DWSRF/ARRA Funds Contributed to Project: $334,000

Bingham Water District added looping to their water mains on dead-end residential streets. This project has increased water pressure and greatly improved water quality.

The Department of Health and Human Services (DHHS) does not discriminate on the basis of disability, race, color, creed, gender, age, sexual orientation, or national origin, in admission to, access to or operation of its programs, services, activities or its hiring or employment practices. This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and in accordance with the Civil Rights Acts of 1964 as amended, Section 504 of the Rehabilitation Act of 1973 as amended, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972 and the Maine Human Rights Act. Questions, concerns, complaints, or requests for additional information regarding civil rights may be forwarded to the DHHS' ADA Compliance/EEO Coordinator, State House Station #11, Augusta, Maine 04333, 207-287-4289 (V) or 207-287 3488 (V), TTY: 800-606-0215. Individuals who need auxiliary aids for effective communication in programs and services of DHHS are invited to make their needs and preferences known to the ADA Compliance/EEO Coordinator. This notice is available in alternate formats, upon request.

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

Caring..Responsive..Well-Managed..We are DHHS.