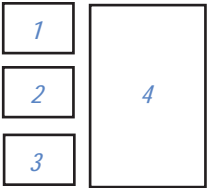


Water Infrastructure Funding Options



For a **Sustainable** Future



(photo 1)

*Deer Island Water Treatment Facility, MA
Alexy Sergeve*

(photo 2)

Stock, Getty images

(photo 3)

*Charles River - Boston, MA
Jonathon Britt*

(photo 4)

Jamestown, RI - New Storage Tank

Water Infrastructure Funding Options

Introduction

The construction and operation of wastewater and drinking water treatment facilities, as well as the corresponding wastewater collection and water distribution systems, have been responsible for the significant gains in water quality and public health achieved over the past 40 years. In New England, a majority of the existing wastewater and drinking water infrastructure was built following World War II, and continues to age and slowly deteriorate.

Water infrastructure improvements can be expensive, yet given the potential magnitude of impacts resulting from failure, it makes fiscal sense to ensure proper maintenance. If a system is well maintained, it can operate safely over a long period of time. Municipalities and utilities are ultimately responsible for the on-going process of oversight, evaluation, maintenance and replacement of water infrastructure assets to maximize and extend the useful life of system components, and more importantly, protect water quality and public health.

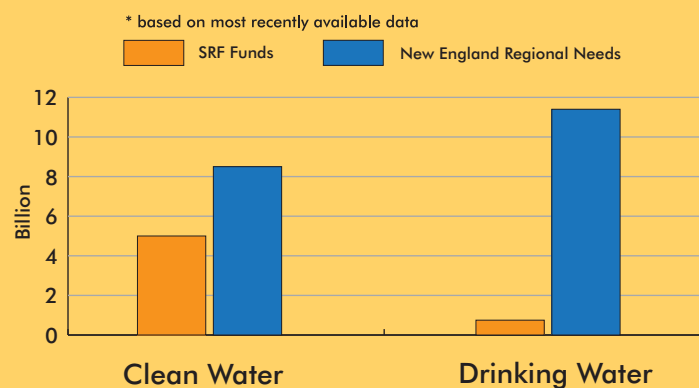
There are significant present and future water infrastructure funding challenges. EPA's 2002 Clean Water and Drinking Water Infrastructure Gap Analysis study presented findings illustrating deficiencies in how municipalities and utilities have been and are investing in their water infrastructure. For example, over a 20-year period (2000-2019) in a "no revenue growth" scenario (comparing projected needs to current spending levels), the study reported a total funding gap of \$122B for wastewater and \$102B for drinking water in unmet capital needs. In a revenue growth scenario (assuming spending will increase by 3 percent every year) over the same 20-year period, the funding gap is reduced to \$21B for wastewater and \$45B for drinking water in unmet capital needs.

Other, more recent EPA publications also depict large infrastructure needs throughout the country. The 2003 Drinking Water Infrastructure Needs Survey and the 2004 Clean Watersheds Needs Survey project a 20-year national need. The need for drinking water infrastructure is estimated at more than \$276B (2003 dollars) while the national wastewater infrastructure need is over \$202B (2004 dollars). The New England regional needs reported in these documents are over \$8.5B for wastewater and over \$11.4B for drinking water. The Gap Analysis below illustrates the regional gap based on the information contained in these surveys and other available information from the Clean Water and Drinking Water National Information Management Systems. Although the figures are staggering, it is critical that our nation invest in infrastructure for the long-term protection of public health, our environment and the economy.

EPA is committed to promoting sustainable practices that will help reduce the gap between funding needs and spending at the local level. EPA believes that better management practices, efficient water and energy use, the full cost pricing of services, and using a watershed approach when making funding decisions can all help responsible municipalities and utilities operate more sustainably, now and in the long-term.

The purpose of this document is to provide municipalities with information on potential sources of federal and state financial assistance to help build, rehabilitate and maintain critical water infrastructure.

Gap Analysis*



Clean Water data was taken from the 2004 National Information Management System reports and the Clean Watersheds Needs Survey 2004 Report to Congress

Drinking Water data was taken from the 2003 National Information Management System reports and the 2003 Drinking Water Infrastructure Needs Survey and Assessment



Water Infrastructure Federal Funding

U.S. Department of Agriculture Rural Development

The 1972 Rural Development Act established the Rural Development Insurance Fund under the Department of Agriculture to provide loans for wastewater and drinking water infrastructure.

Today, Rural Development's Water and Environmental Programs (WEP) provides loans, grants and loan guarantees for drinking water, sanitary sewer, solid waste and storm drainage facility improvements in rural areas and cities and towns with populations of 10,000 or less. Public entities, non-profit organizations, and recognized Indian tribes may qualify for assistance. Rural Development has a number of funding and loan programs under its WEP umbrella. These include: (1) Direct Water and Waste Disposal Loan Program; (2) Water and Waste Disposal Grant program; and (3) Guaranteed Water and Waste Disposal Loan program. Nationally, these three programs accounted for over \$1.43B in federal financial assistance to small cities and towns during FY2007. Of the available \$1.43B, nearly \$87M was provided to New England communities in FY2007.

Source: (1) USDA website - <http://www.usda.gov/rus/water/index.htm> and (2) USDA – RD Water and Environmental Programs FY2007 Annual Activity Report

U.S. Department of Housing and Urban Development

In 1974, the Department of Housing and Urban Development initiated the Community Development Block Grant (CDBG) Program. There are two available funding programs: (1) Community Development Block Grant - Entitlement Communities Grants; and (2) State Administered CDBGs which enable local and state governments to target their own economic development priorities. The rehabilitation of affordable housing has been the largest single use of these grants, with the CDBG program as an important catalyst for job growth and business opportunities for lower income families and neighborhoods. The programs identify a wide range of eligible activities, including the construction of public facilities and improvements, such as water and sewer infrastructure. It is estimated that roughly 10-20 of such block grants are utilized to support water and wastewater infrastructure.

Source: (1) HUD website – <http://www.hud.gov> and (2) EPA July 2003 Report to Congress – Paying for Water Quality



New Water Treatment Plant Filters and Distribution System in the Town of Newbury, VT.



Wet Weather CSO Facility Construction in Nashua, NH.

U.S. Environmental Protection Agency

The Clean Water and Drinking Water State Revolving Loan Fund Programs – Federal and State Partnerships

Clean Water State Revolving Fund Program

The Clean Water Act Amendments of 1987 authorized the Clean Water State Revolving Fund (CWSRF) Program, an innovative method of financing for a range of water quality/wastewater environmental projects. Under the program, the EPA provides grants or "seed money" to all 50 states plus Puerto Rico to capitalize state loan funds. The states, in turn, use these funds in addition to a 20% match provided by the states to make low interest rate loans to communities for high priority water quality projects. As money is paid back into the revolving fund, new loans are made to other recipients enabling them to maintain the long-term integrity of their wastewater treatment and collection infrastructure.

At the end of FY2007, CWSRF programs had funded over \$63B, providing over 20,700 low interest loans nationally to fund water quality protection projects for wastewater treatment, non-point source pollution control, and watershed and estuary management. As of April 2008, over \$1.9B in CWSRF capitalization grants have been provided to the six New England states resulting in over \$5.6B in loans awarded to New England communities for water quality and wastewater infrastructure improvements to protect public health and the environment.

Drinking Water State Revolving Fund Program

On a similar path, the Safe Drinking Water Act (SDWA) Amendments of 1996 authorized the Drinking Water State Revolving Fund (DWSRF) Program. Like the CWSRF program, the DWSRF allows states to make low interest loans with capitalization grant dollars and state match funds to public water systems for drinking water related infrastructure projects. By funding these infrastructure projects, the DWSRF program supports the goals of the SDWA by assisting public water systems achieve and maintain compliance with drinking water standards. This, in turn, helps to ensure a safe drinking water supply for the protection of public health nationwide.

As of the end of FY2007, the DWSRF Program had provided over \$688M in capitalization grants to the six New England states. Of this amount, over \$1.2B has been provided in loan assistance to public water systems in New England for drinking water infrastructure projects.

State contacts for the CWSRF and DWSRF programs are listed below.

Clean Water SRF

CT William Hogan.....(860) 424-3753
MA Steve McCurdy(617) 292-5779
ME Steve McLaughlin(207) 287-7768

NH Gretchen Rich (603) 271-3448
RI Jay Manning (401) 222-3961
VT Larry Fitch..... (802) 241-3742

Drinking Water SRF

CT Ted Dunn(860) 509-7333
MA Steve McCurdy(617) 292-5779
ME Nate Saunders(207) 287-5684

NH Rick Skarinka (603) 271-2948
RI Gary Chobanian .. (401) 222-7768
VT Eric Blatt (802) 241-3425

Wastewater Infrastructure Funding in New England

State	CWSRF	New WW Plant or Treatment Plant Upgrade	Regional Wastewater Treatment Authority	Small Community Wastewater Project	CSO Projects
CT	Loans at 2%.	20% grant of all project costs (in conjunction with CWSRF loan at 2%). Nitrogen removal portion is at 30% grant.	25% grant of all initial project costs (in conjunction with CWSRF loan at 2%).	25% grant of all project costs (in conjunction with CWSRF loan at 2%).	50% grant of all project costs (in conjunction with CWSRF loan at :

State	CWSRF	Municipal Construction Grants Program	Small Community Grant Program	CSO Grant
ME	Loans at 2% below equiv. tax exempt rate.	Up to 80% grant of the expense of a municipal or quasi-municipal pollution abatement construction program. Very limited funds; only hardship communities eligible (user charge near 2% MHI).	Amount of grant varies. Only for pollution control projects costing \$100,000 or less (usually individual septic systems).	25% of CSO

State	CWSRF	Other Wastewater Grant Programs
MA	Loans at 2%.	None. However, the Commonwealth of MA leverages the federal SRF capitalization grants through the sale of bonds. Depending on needs in a given year, can be up to 3:1. The state also appropriates funds each year (known as "cost sharing") to subsidize the market interest rate down to 2% for all SRF project loans.

State	CWSRF	Wastewater Grants
NH	Loans. Interest rate based on percentage of current market rate & the term of the loan.	20% grants for all eligible wastewater treatment costs and an extra 10% grant for rates above the state median. Up to 50% grant of eligible project costs for increased capacity facilities projects.

State	CWSRF	Wastewater Interceptor Bond/Grant Fund
RI	Loans at a 33% reduction of the recipients market rate of borrowing.	Up to 50% grant (capped at \$500,000) for eligible interceptors.

State	CWSRF	New WW Plant or Treatment Plant Upgrade or Refurbishment	New Phosphorus Removal Requirements	Dry Weather Pollution Abatement
VT	Loans at 0%.	50% grant on sludge and septage train including septage receiving facilities. State establishes criteria for receiving grant (plant size, volume of septage received).	100% grant of the eligible cost of phosphorus treatment.	35% grant of eligible project costs.

Drinking Water Infrastructure Funding in New England

Wastewater Facilities Planning	
	55% grant if funding is available (in conjunction with CWSRF loan at 2%).

Abatement Planning Program	
	grant of eligible costs for Facilities Plans.

	nds. The leverage ratio, ntract assistance”) to

	communities with sewer ed septage handling

	ptor installation projects.

ement	CSO Projects
ble	25% grant of eligible project costs.

State	DWSRF	Small Town Economic Assistance Program (STEAP)
CT	Loans. Interest rates vary based on current market rate & the term of the loan.	Up to \$500,000 per year for towns with a population less than 30,000. Can only be used for capital projects, including drinking water and wastewater infrastructure projects.

State	DWSRF	Other Drinking Water Grant Programs
ME	Loans at 2% below equivalent tax exempt rate. Disadvantaged loan subsidies available for eligible recipients meeting the states criteria.	None.

State	DWSRF	Other Drinking Water Grant Programs
MA	Loans at 2%	None. However, the Commonwealth of MA leverages the federal SRF capitalization grants through the sale of bonds. The leverage ratio, depending on needs in a given year, can be up to 3:1. The State also appropriates funds each year (known as “contract assistance”) to subsidize the market interest rate down to 2% for all SRF project loans.

State	DWSRF	Filtration Grant Program	System Interconnection and Groundwater Investigation Program
NH	Loans at 2% below equivalent tax exempt rate. Interest rates vary based on current market rate & the term of the loan. Disadvantaged loan subsidies available for eligible recipients meeting the states criteria.	Up to 30% reimbursement for the cost of compliance with the Surface Water Treatment Rule.	25% reimbursement of design and construction costs for interconnection of two or more public water supplies.

State	DWSRF	Water Facilities Assistance Program
RI	Loans at a 25% reduction of the recipients market rate of borrowing. Disadvantaged loan subsidies are available for eligible recipients meeting the states criteria.	Up to 50% grant for design/construction cost for new public water supply facilities, system improvements, and emergency interconnections.

State	DWSRF	Other Drinking Water Grant Programs
VT	Loans from -3% to +3%	None.



Water Infrastructure State Funding

Connecticut

Wastewater Infrastructure Grants

The state offers grants to municipalities for wastewater infrastructure projects in conjunction with obtaining a Clean Water State Revolving Fund loan. The amount of the grant varies depending on the type of project, but generally the grants fall into the categories below:

New Wastewater Plant/Treatment Plant Upgrade	20% grant on all project costs (30% grant on nitrogen removal component)
Regional Wastewater Treatment Authority	25% grant on all initial project costs
Small Community Wastewater Project	25% grant on all project costs
CSO Projects	50% grant on all project costs
Wastewater Facilities Planning	55% grant (if funding is available)

In FY2007, the state awarded approximately \$20M in grants for various wastewater related infrastructure projects. To continue the success of its grant programs, the state appropriated \$90M for wastewater related grants which will be used in conjunction with CWSRF loans. More information on these grant programs can be obtained from William Hogan at the CT DEP at (860) 424-3753.

Small Town Economic Assistance Program (STEAP)

The Small Town Economic Assistance Program (STEAP) funds economic development, community conservation and quality of life projects for localities that are ineligible to receive Urban Action (CGS Section 4-66c) bonds. This program is administered by the State of CT's Office of Policy and Management.

Like Urban Action, STEAP funds are issued by the State Bond Commission and can only be used for capital projects. There are a wide range of projects that can be funded through STEAP funds, including those for environmental protection, wastewater infrastructure and drinking water infrastructure.

Localities may receive up to \$500,000 per year if (1) they are not designated as a distressed municipality or a public investment community, and (2) the State Plan of Conservation Development does not show them as having an urban center. For more information about this program or about eligibility, contact Lisa DuBois at (860) 418-6209.



Wastewater Treatment Plant in Stratford, CT.

Maine

Municipal Construction Grants Program

State law gives the Maine Department of Environmental Protection (ME DEP) the flexibility to use grant dollars with the Clean Water State Revolving Fund and other sources of funding to provide affordable financing packages for municipal wastewater facilities. The state may award grants in an amount not to exceed 80% of the expense of a municipal or quasi-municipal wastewater construction program. Participation is limited to grants for waste treatment facilities, interceptor systems and outfalls. At present, there is very limited funding in this grant program and only hardship communities (identified as those where the user charge approaches 2% of the median household income level) are eligible for this grant program.

Further information on this program can be obtained from Stephen McLaughlin at (207) 287-7768.

Small Community Grant Program

The ME DEP's Small Community Grant Program provides state grants for pollution control projects costing \$100,000 or less. The program is suitable for pollution control projects constructed in rural areas of the state. Grants awarded to towns can be used to fund the cost of replacing privately owned sewerage systems to abate pollution to water bodies or shellfishing areas, or to address public health problems resulting from failed systems. Only projects which remove a wastewater discharge are eligible for a grant.

This grant program was created by the Maine legislature under 38 M.R.S.A. Section 411. It is administered by the Land and Water Bureau's Division of Water Quality Management. The state's share of funding for projects in this grant program comes from bond issues approved by the voters of the state of Maine. For more information on this program, contact Tim MacMillan at (207) 287-7765.

Combined Sewer Overflow (CSO) Abatement Planning Grant Program

Combined sewer overflows (CSOs) occur during storm events when a mixture of wastewater and stormwater runoff overflows the combined sewer collection system before receiving treatment at a licensed wastewater treatment facility. These discharges of diluted untreated wastewater violate both state and federal water pollution laws. Municipalities or Sewer Districts that have CSOs are required to license them with the ME DEP. License requirements direct these communities to evaluate their CSO problems and determine cost effective solutions to abate them.

In 1990, voters approved a state bond issue for \$2.4M to be used to fund CSO related studies that develop recommendations for solving CSO problems. Grants are awarded for 25% of eligible project costs.

Design and construction costs associated with CSO remediation may be funded by the state's CWSRF loan program or, depending on municipal/district financial capability and grant availability, a state grant. For more information on this grant program or the state's CSO program, contact John True at (207) 287-7808.



POTW Finished Clarifier in Sanford, ME.



State Funding (cont.)

Massachusetts

Massachusetts does not have grant programs for either wastewater or drinking water infrastructure projects. However, the state appropriates funding each year to subsidize market interest rates down to 2% on all CWSRF and DWSRF loans. This allows for infrastructure projects to proceed more affordably than they would if they had to obtain loans at market interest rates. Currently, the interest subsidy results in a \$65M annual expense to the state. For more information about the Massachusetts SRF programs, contact Steve McCurdy at (617) 292-5779.

**In New England,
a majority of the
existing wastewater
and drinking water
infrastructure was
built following
World War II, and
continues to age and
slowly deteriorate.**

New Hampshire

Wastewater Treatment Facility Grant Program

This program provides financial assistance in the form of a 20% grant, or if the community's sewer user fee is 20% higher than the state average user fee, a 30% grant, for the planning, design and construction of certain sewage disposal facilities by municipalities. Additionally, funds are available to municipalities that expand, upgrade or develop new wastewater treatment facilities to provide for septage disposal. A municipality may be reimbursed by the state an additional 10% of eligible costs, derived from the acquisition and construction of septage treatment facilities, which results in increased septage and/or treatment capacity to meet the septage disposal needs of residents. The grant increases by 2% for each municipality with which the host community holds a written agreement to provide for their septage disposal needs. The total grant amount can equal up to 50% of the eligible costs.

This program, which helped build 92 municipal treatment facilities across the state, began modestly in the early 1960s and was expanded in 1972 with federal Water Pollution Control Act funds. Since its inception, the program has disbursed over \$831M to New Hampshire municipalities. The program continues to disburse, on average, \$13.6M annually to communities. For more information regarding wastewater treatment grants contact Gretchen Rich at (603) 271-2977.

Surface Water Treatment Grants

This program provides financial assistance in the form of a 20% grant, or if the community's sewer user fee is 20% higher than the state average user fee, a 30% grant, for the planning, design and construction of improvements that have been required to comply with the surface water treatment rules of the federal Safe Drinking Water Act of 1986.

Regional Water Treatment System Grants

This grant program provides a 25% reimbursement of costs for the planning, design and construction of piping, pumping, and source improvements associated with interconnection of two or more public water systems.

Groundwater Investigation Grants

This grant program provides 25% reimbursement of costs for investigating wells with detectable levels of man-made contaminants. However, this program excludes investigation of wells contaminated with MTBE. For more information on surface water treatment grants, regional water system grants or groundwater investigation grants, contact Rick Skarinka at (603) 271-2948.

Rhode Island

Wastewater Interceptor Grant Fund

The purpose of this grant program is to provide funds for wastewater interceptor projects in order to extend sewerage to areas which should no longer be served solely by septic systems. This program is administered by the Office of Water Resources of the Rhode Island Department of Environmental Management. Interceptor projects are eligible for a 50% grant on all eligible costs with the total amount of grant funds on any one project being capped at \$500,000. Additional funds are not appropriated each year by the state, and this grant program will end once all available funds have been expended. For more information contact Jay Manning at the RI DEM at (401) 222-3961.

Water Facilities Assistance Grant Program

This grant program, initiated in 1983 and administered by the Rhode Island Water Resources Board, provided up to a 50% grant for the design and construction of new public water supply facilities. The funds were also available for system improvements and emergency interconnections between systems. However, the only funds presently available are for emergency interconnections, whereby a 25% grant is allowed for a one way connection, and up to a 50% grant is available for a two way connection. Over the course of this grant program, over twenty major system improvements benefiting fourteen water districts have been funded. For more information about this grant program, contact Romeo Mendes at the Rhode Island Water Resources Board at (401) 574-8409.

*See [At A Glance](#) table on pgs. 4-5 for summary of programs in each state.

Vermont

Municipal Pollution Control Grants

The Vermont Department of Environmental Conservation offers grants for a range of water pollution control projects. Grant funding is available for phosphorus removal projects (100% grant of the eligible project costs); sludge and septage projects at wastewater treatment facilities (50% grant on sludge and septage train); CSO projects (25% grant of all eligible costs); and dry weather pollution abatement projects (35% of all eligible costs). Further information about these grants can be obtained from Don Robisky at (802) 241-3734.



Pump Station Under Construction in Orford Village, NH.



EPA CONTACTS
Municipal Assistance Unit

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LINKS
to EPA Region 1 Web sites

CWSRF
<http://www.epa.gov/region1/cwsrf/>

DWSRF
<http://www.epa.gov/region1/eco/drinkwater>