

# MAINE STATE LEGISLATURE

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# TRIENNIAL REPORT TO THE GOVERNOR

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## Technical, Managerial and Financial Capacity of Maine's Public Water Systems



Department of Health and Human Services  
Maine Center for Disease Control and Prevention  
Division of Environmental Health  
**Drinking Water Program**



*Paul R. LePage, Governor*

*Mary C. Mayhew, Commissioner*

September 30, 2014

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## **Executive Summary**

Improving the technical, managerial, and financial “capacity” of a public water system increases the water system’s ability to consistently and reliably supply safe drinking water to consumers. Over the past three years, great progress has been made towards “improving the capacity” (aka Capacity Development) of public water systems. This report summarizes the efforts of the Maine CDC Drinking Water Program (DWP) over the past three years to improve the capacity of public water systems and to ensure they are supplying safe drinking water.

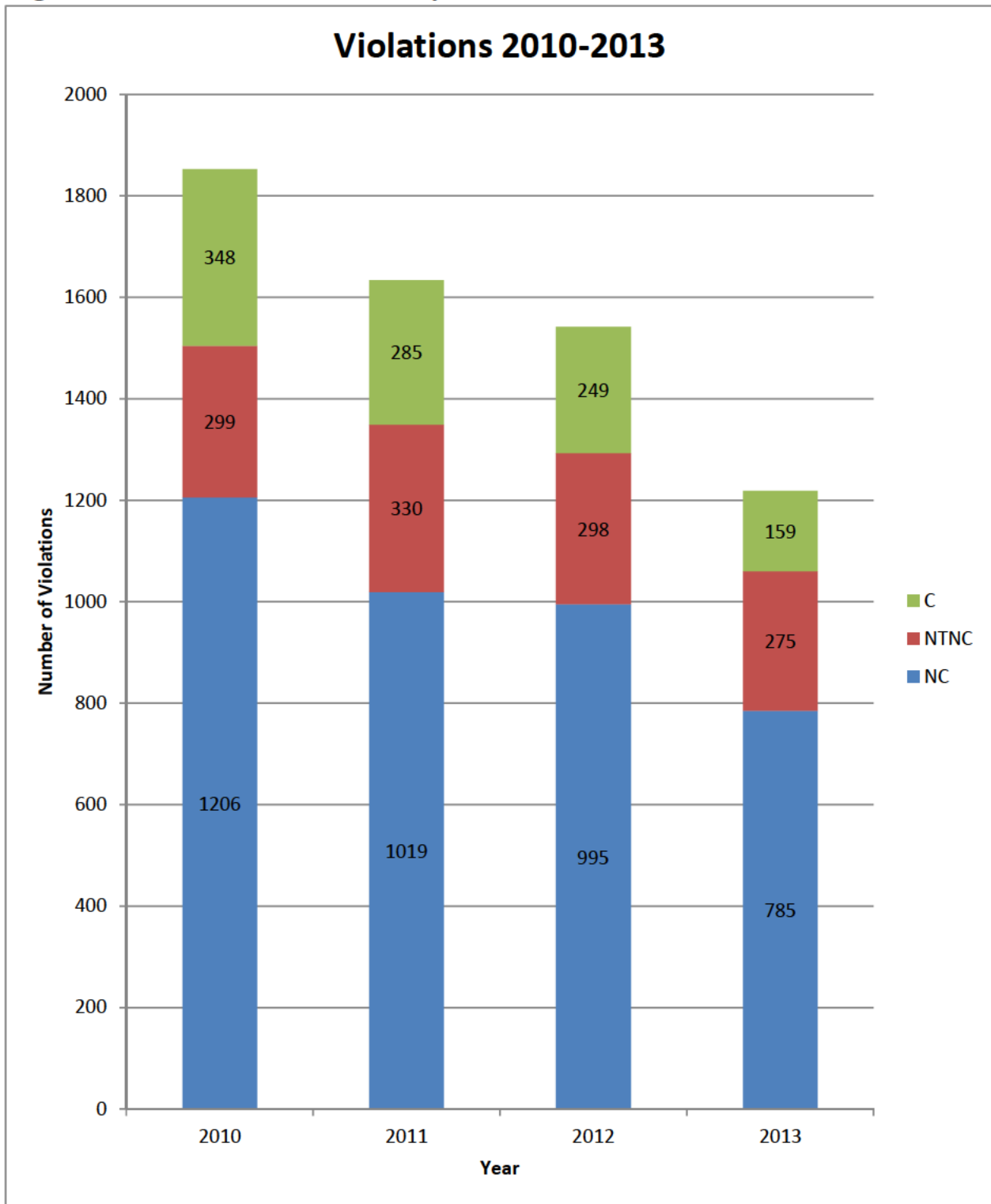
A principal measure of the success of Capacity Development effort is the rate of compliance with the state and federal regulations related to safe drinking water. Since 2010, compliance rates for public water systems in Maine have shown a steady improvement, with a 34% decrease in total violations. Water systems are more consistent in the collection of water samples, and overall water quality has improved. A summary of water system violations can be found in Figure ES-1.

The DWP provides financial assistance to public water systems throughout Maine to replace aging water mains, upgrade water treatment plants to be more efficient and reliable, find new water sources to improve water quality, and build new water storage tanks to ensure safe drinking water and provide essential public health protection. The DWP also provides financial assistance through grant programs to assist water systems with developing plans and studies, protecting their water source, consolidating with another water system, and installing treatment to resolve ongoing violations. The DWP provided water systems with over \$32 million in loans and grants during the past three years to assist with these critical infrastructure improvements.

Ongoing training is essential to ensuring that water operators (including owners and other personnel) are up-to-date with current regulations and technologies. Water operators receive training through on-site technical assistance visits and classroom training sessions. The DWP staff and contractors provide direct, on-site technical assistance and education to help water operators maintain and improve their water operations and management. During the reporting period, over 3,900 on-site visits were made to water systems by DWP staff and its contractors. Classroom training helps build an operator’s knowledge on the operation and maintenance of a public water system through various training topics. Over 3,300 water system personnel received training with the assistance of DWP funding during the reporting period.

A summary of the funding used to support Capacity Development can be found in Table ES-1.

**Figure ES-1 Total Public Water System Violations**



**Community (C):** A public water system that supplies water to the same population year-round.

**Non-Transient, Non-Community (NTNC):** A public water system that regularly supplies water to at least 25 of the same people at least six months per year, but not year-round. Some examples are schools, factories, office buildings, and hospitals which have their own water systems.

**Transient, Non-Community (NC):** A public water system that provides water in a place such as a gas station or campground where people do not remain for long periods of time.

**Table ES-1 Funding Capacity Development Summary**

|  | <b>SFY2012</b> | <b>SFY2013</b> | <b>SFY2014</b> | <b>Totals</b> |
|--|----------------|----------------|----------------|---------------|
| <b>Loans*</b>  |                |                |                |               |
| Infrastructure Construction  | \$12,866,879   | \$8,748,414    | \$9,951,778    | \$31,567,071  |
| Land Acquisition   | \$0            | \$0            | \$0            | \$0           |
| Very Small Water System Compliance Loans   | \$162,297      | \$79,845       | \$7,800        | \$249,942     |
| <b>Grants*</b>   |                |                |                |               |
| Capacity Development   | \$50,493.94    | \$122,753.43   | \$77,712.97    | \$250,960.34  |
| Source water Protection  | \$3,289        | \$61,619.67    | \$20,000       | \$84,908.67   |
| Wellhead Protection  | \$53,612.49    | \$71,248.25    | \$33,634.52    | \$158,495.26  |
| Sanitary Seal Well Cap   | \$1,253.83     | \$2,598.30     | \$2,848.99     | \$6,701.12    |
| System Consolidation   | \$15,422.50    | \$104,542.41   | \$86,954.00    | \$206,918.91  |
| <b>Contracted Services*</b>  |                |                |                |               |
| Training Reimbursement   | \$27,870       | \$46,545       | \$56,110       | \$130,525     |
| Maine Rural Water Association  | \$200,211      | \$201,930      | \$203,060      | \$605,201     |
| Maine Water Utilities Association  | \$58,100       | \$62,433       | \$22,897       | \$143,430     |
| Rural Community Action Program   | \$9,426.92     | \$7,232.68     | \$10,780.16    | \$27,439.76   |
| <b>DWP Employees</b>   |                |                |                |               |
| Federal Funding  | \$2,558,016    | \$2,533,370    | \$2,480,936    | \$7,572,322   |
| Other Special Revenue  | \$572,244      | \$602,839      | \$669,338      | \$1,844,421   |
| General Fund   | \$172,855      | \$171,962      | \$182,934      | \$527,751     |
| Total Number of Employees  | 35             | 35             | 34             |               |
| Estimated Percent of All DWP Employee Funding Supporting Capacity Development Activities   | 29%            | 29%            | 27%            |               |
| * Grants and Contracted Service are 100 percent funded with federal funds. Construction loans are a combination of federal funds and “State Match.” Access to the annual federal grant requires a 20 percent State Match. Funding for State Match has historically come from voter approved General Obligation Bonds. Starting in June 2015 State Match will be funded through revenue generated by the State Liquor Contract. |                |                |                |               |

## Introduction

The 1996 Amendments to the Safe Drinking Water Act (SDWA) mandate the preparation of a triennial report to the Governor of each state to apprise the Governor of the efficacy of the Public Water System Capacity Development Program and to report generally on the progress of improving the technical, managerial and financial capacity operations of public water systems. This report is issued in fulfillment of that requirement. The reporting period for this report is for State fiscal years 2012-2014 (July 1, 2011-June 30, 2014).

The SDWA was established in 1974 to protect public health by regulating drinking water contaminants. The SDWA was structured to enable each state to become a primacy agency, the administrative and enforcement arm of the US Environmental Protection Agency at the state level. The Drinking Water Program (DWP), located in the Division of Environmental Health, Maine Center for Disease Control and Prevention, of the Department of Health and Human Services is the primacy agency for the State of Maine.

The 1996 Amendments to the SDWA added a requirement for each state to develop a Capacity Development Program. Capacity Development's broad goal is to assist public drinking water systems in both maintaining and improving their technical, managerial and financial operations, referred to as "capacity," to be able to meet federally mandated drinking water requirements. Capacity Development encompasses many activities performed by the DWP and third party organizations involved in drinking water operations. The effectiveness of a system's capacity depends upon the interaction of these three criteria:

- Technical Capacity refers to the ability of a system to meet standards and to provide safe and reliable drinking water. Key to technical capacity is operator expertise and infrastructure adequacy (source water adequacy and collection, storage, treatment and distribution facilities).
- Managerial Capacity pertains to the ability of personnel to manage and administer or to otherwise operate the water system. Key items for managerial capacity include ownership, organization, accountability and planning.
- Financial Capacity refers generally to the monetary resources of the water system and includes cost effectiveness, creditworthiness, fiscal control, cash flow and cash reserves.

To support each state's Capacity Development activities and to provide direction for those activities, each state was mandated to develop a Capacity Development Strategy (Strategy) with the input and assistance of a committee of stakeholders, known as an Advisory Committee. Based upon the recommendations of the Advisory Committee, the DWP developed 11 specific goals for Maine's Strategy. The Strategy was completed and accepted in 2000; the Strategy was revised in 2010. Because each capacity element overlaps and consequently supports the others, any weakness or failure of an individual element can lead to the collapse of the others. It is the intent of the Strategy to prevent the creation of nonviable public water systems, to identify systems at risk and to assist systems to acquire, enhance and maintain system capacity.

A summary of the types and size public water systems that DWP regulates can be found in Table 1.



**Table 1 Number of Public Water Systems**

|  | Population Served |           |              |                |          |
|--|-------------------|-----------|--------------|----------------|----------|
|  | 25-500            | 501-3,300 | 3,301-10,000 | 10,001-100,000 | 100,001+ |
| Community  | 253               | 90        | 20           | 12             | 1        |
| Non-Transient, Non-Community   | 356               | 19        | 0            | 0              | 0        |
| Transient, Non-Community   | 1,091             | 35        | 0            | 0              | 0        |
| <b>Total</b>   | 1,700             | 144       | 20           | 12             | 1        |
| <p><b>Community:</b> A public water system that supplies water to the same population year-round (residential population).</p> <p><b>Non-Transient, Non-Community:</b> A public water system that regularly supplies water to at least 25 of the same people at least six months per year, but not year-round. Some examples are schools, factories, office buildings, and hospitals which have their own water systems.</p> <p><b>Transient, Non-Community:</b> A public water system that provides water in a place such as a gas station or campground where people do not remain for long periods of time.</p> |                   |           |              |                |          |

## I. Grant and Loan Programs

During the three year period of this report, over 32 million dollars was invested into public water system improvements through loans and grants. A more detailed summary can be found below.

### A. Loans

#### 1. Drinking Water State Revolving Fund Program

When Congress passed Amendments to the Safe Drinking Water Act in 1996, it authorized the U.S. Environmental Protection Agency to set up Federal Capitalization Grant Funds. This federal money, combined with state match money, blended bond sale money and repayment money, allows the Drinking Water Program (DWP) to finance projects for water system capital improvements.

Funds are available as low interest loans. Disadvantaged community water systems may receive further assistance through principal forgiveness.

The Department of Health and Human Services and the Maine Municipal Bond Bank (MMBB) administer the Drinking Water State Revolving Fund (DWSRF) together. The DWP is the Lead Administrator and is responsible for project management and technical support, as well as overseeing activities. The MMBB is the Financial Administrator and oversees the loan application process and tracks money to and from the fund.

A portion of the federal grant is set aside each year from the revolving loan fund and used for non-project activities. Those activities include source water protection programs, technical assistance to small systems, a revolving loan fund for land acquisitions, system planning grants and wellhead protection.

**53** water systems were approved for DWSRF loans during the reporting period.

**\$31,567,071** was loaned during the reporting period.

## **2. Land Acquisition Loan Program**

The Land Acquisition Loan Program assists Community and non-profit, Non-Community water systems purchase land and/or conservation easements needed for source water protection. The DWP believes that a water system's ownership or legal control of the land around its source(s) is the most effective means of protecting its source(s).

- 1 water system was approved for a loan during the reporting period and the loan is still in progress.
- 2 water systems were approved for a loan during the reporting year but did not proceed with the loan.

No funding was loaned during the reporting period.

## **3. Very Small System Compliance Loan Program**

The Very Small System Compliance Loan Program allows Community systems with a population of 100 or less, and all not-for-profit, Non-Transient, Non-Community water systems to receive up to \$50,000 loans for infrastructure projects that are needed to achieve compliance with a current or future standard of the Safe Drinking Water Act, excluding the Total Coliform Rule. This loan program assists water systems with repeat monitoring violations return to compliance with drinking water regulations.

- 11 water systems were approved for Very Small System Compliance Loans during the reporting period.

**\$249,942** was awarded to water systems during the reporting period.

## **B. Grants**

### **1. Capacity Development Grant Program**

Grant money is available to Community and non-profit, Non-Community water systems for the preparation of engineering or planning studies or reports to help systems maintain or improve technical, managerial and financial capacity. The grant money is provided on a reimbursement basis to systems that have completed approved plans or studies. Grant money covers 50% of the plan or study costs, up to a maximum reimbursement amount of \$15,000. The types of plans or studies that are allowed include:

- Comprehensive System Facilities Plans
- Capital Improvement Plans
- System Hydraulic Modeling Studies/Reports
- Hydrogeological Investigation Reports for New or Supplemental Source Water
- Comprehensive Operations and Maintenance Manuals
- System Vulnerability Assessments
- Emergency Response Plans
- Management Review Studies/Reports
- System Consolidation Studies
- Asset Management Plans
- GIS Infrastructure Mapping
- Comprehensive Community Planning Studies which include a public water infrastructure component. Consideration will be given for funding the "drinking water" portion of such studies.

- Other professionally prepared documents that enhance system capacity, as determined by the DWP.

**17** water systems were approved for grants before the reporting period but were reimbursed for projects completed in the reporting period.

**15** water systems were approved for grants and were reimbursed in the reporting period.

**39** water systems were approved for grants within the reporting period and have projects in various stages of completion.

**\$250,960.34** was reimbursed to water systems during the reporting period.

## **2. Source Water Protection Grant Program**

The Source Water Protection Grant Program began in the spring of 2011. Grants are awarded to Community and non-profit, Non-Community public water systems for projects that will help protect their surface water source. Grants are awarded either up to \$5,000 or \$10,000, depending on the scope of the project. Examples of projects are:

- Developing or updating Watershed Management Plans;
- Developing or implementing drinking water education and public outreach programs;
- Establishing local protective ordinances or legal agreements in the source protection area;
- Road and storm water management and reconstruction activities; and
- Buffer establishment and upkeep activities.

**4** water systems were approved for grants before reporting period but were reimbursed during reporting period.

**10** water systems were approved for grants and were reimbursed in the reporting period.

**4** water systems were approved for grants within the reporting period and have projects in various stages of completion.

**5** water systems were approved for grants but never sought reimbursement, or the deadline for reimbursement passed and grants were never reimbursed.

**\$84,908.67** was reimbursed to water systems during the reporting period.

## **3. Wellhead Protection Grant Program**

The Wellhead Protection Grant Program awards grants to Community and non-profit, Non-Community public water systems for projects that will help protect their groundwater source from contamination. Specifically, grants are awarded to projects that clearly reduce the likelihood of contamination occurring in the Source Water Protection area by existing or future activities. Grants are awarded either up to \$5,000 or \$10,000 depending on the scope of the project. Examples of projects are:

- Assisting in the replacement of oil storage tanks in the source protection area;
- Subsidizing the removal of septic systems from the source protection area;
- Establishing or enabling a source monitoring program;
- Removing hazardous chemicals from the source protection area;
- Developing or implementing drinking water education programs;
- Establishing local protective ordinances or legal agreements in the source protection area;

- Preparing or updating a Wellhead Management Plan; and
- Implementing stormwater best management practices in the source protection area.

**11** water systems were approved for grants before reporting period but were reimbursed during reporting period.

**23** water systems were approved for grants and were reimbursed in the reporting period.

**20** water systems were approved for grants within the reporting period and have projects in various stages of completion.

**4** water systems were approved for grants but never sought reimbursement, or the deadline for reimbursement passed and grants were never reimbursed.

**\$158,495.26** was reimbursed to water systems during the reporting period.

#### **4. Sanitary Seal Well Cap Program**

The Sanitary Seal Well Cap Program awards grants to public water systems that install sanitary seal well caps on their wells. Groundwater well contamination often results from loose fitting or poorly sealed well caps and poorly sealed electrical conduits that allow insects, animals or surface water to directly enter wells. A sanitary seal well cap, when installed correctly, prevents insects, small animals, and other surface contaminants from entering the top of the well and contaminating the well with pathogenic organisms. All public water systems are eligible for reimbursement for up to 75% of the cost of the installation of a sanitary seal well cap, up to a maximum \$250.

**10** water systems were approved for grants before reporting period but were reimbursed during reporting period.

**30** water systems were approved for grants and were reimbursed in the reporting period.

**2** water systems were approved for grants within the reporting period and had not requested reimbursement in the reporting period.

**30** water systems were approved for grants but never sought reimbursement, or the deadline for reimbursement passed and grants were never reimbursed.

**\$6,701.12** was reimbursed to water systems during the reporting period.

#### **5. System Consolidation Grant Program**

The System Consolidation Grant Program assists water systems with a technical, managerial or financial capacity issue consolidate with a more viable public water system. The grant will fund no more than 50% of the cost of the water system consolidation for for-profit facilities and no more than 75% of the cost of the water system consolidation for not-for-profit facilities. Grant awards may not exceed \$100,000.

**8** water systems were approved for System Consolidation Grants during the reporting period.

**\$206,918.91** was awarded to water systems during the reporting period.

## **II. On-Site Technical Assistance to Water Systems by DWP Staff**

### **A. Capacity Development Reviews**

Before capital loans are approved by the DWP for drinking water construction projects or the purchase of land to safeguard water sources, applicants must undergo a Capacity Development Review to assure that the systems possess adequate technical, managerial and financial capacity. A Capacity Development Review assesses many aspects such as source water adequacy, infrastructure adequacy, implementation of technical knowledge, ownership accountability, staffing and organization, effective external linkages, short-term and long-term planning, revenue sufficiency, credit worthiness, and fiscal management and controls.

**46** water systems underwent a Capacity Development Review during reporting period.

### **B. Sanitary Surveys**

A Sanitary Survey is an on-site review of a public water system's water source(s), treatment, distribution system, finished water storage, pumps, pump facilities and controls, monitoring, reporting and data verification, water system management and operations, and operator compliance with state requirements. Sanitary Surveys are designed to identify conditions that may present a sanitary or public health risk. A Sanitary Survey identifies systems that require technical or managerial Capacity Development.

Community Water Systems are required to undergo a Sanitary Survey every 3 years; these public water systems serve the same population year-round. Non-Community water systems are required to undergo a Sanitary Survey every 5 years; these systems serve the public but do not serve the same population year-round.

**1,369** Sanitary Surveys were conducted during the reporting period.

### **C. Source Water Assessment Program**

The 1996 Amendments to the Safe Drinking Water Act required each state to develop a program for assessing the susceptibility to contamination of each public drinking water source in the state. The DWP wants to ensure that when a water supply is at risk of contamination, the public water systems of Maine are made aware so that the appropriate steps can be taken to minimize or eliminate the risk.

Source Water Assessments include:

- A delineation of the recharge area of a well or watershed of a surface water body
- An inventory of land uses and potential contamination sources which exist, or could; within the delineated source water protection area
- An evaluation of the susceptibility to contamination of the water source to the potential hazards that are identified in the inventory

**216** Global Positioning System (GPS) points for public drinking water wells and intakes were recorded during the reporting period.

**359** GPS points for public water system treatment plants were recorded during the reporting period.

**244** Source Water Assessments were completed during the reporting period.

In 2014 the DWP began a project to create inventory maps identifying significant Above Ground Storage Tank (AST) facilities located upstream from Public Water Supply (PWS) intakes on rivers and streams in Maine. This project was initiated in response to the January 2014 chemical spill at an AST facility above the Charleston, West Virginia PWS intake on the Elk River. The DWP is determined, with the help of our public water systems and other State and Federal agencies, to do everything we can to prevent such an occurrence in Maine and to prepare to respond efficiently in the event of a spill to protect our public drinking water supplies.

For each PWS with a river intake, the DWP is preparing a report that includes a set of maps showing the results of the AST Inventory Mapping Project. In order to enhance the usefulness of the maps, the DWP in conjunction with the Maine Emergency Management Agency, the Maine Department of Environmental Protection and the Maine Rural Water Association, is holding a series of chemical spill workshops and Table Top Exercises to:

- Identify the best efficient methods of communication and notification during a spill event;
- Discuss typical countermeasures that can be employed by the PWS affected by a spill;
- Identify emergency resources available to the PWS; and
- Describe how the PWS can internally identify spill risks and develop countermeasures.

|   |
|---|
| <b>1</b> Report and maps finalized during the reporting period. |
|---|

|   |
|---|
| <b>10</b> Reports and maps being prepared for the other 10 PWSs with intakes on rivers and streams. |
|---|

#### **D. Emergency Preparedness Planning**

The Public Health Security and Bioterrorism Act of 2002, which amended the Safe Drinking Water Act, required all public water systems serving more than 3,300 to develop an Emergency Response Plan. In 2005, the DWP developed an Emergency Response Plan (ERP) for public water systems serving less than 3,300 to assure that all water systems have an ERP. The DWP distributed the ERP to all public water systems. In 2011, the DWP developed an Emergency Response Plan of Action for water systems serving fewer than 3,300 people. The DWP also developed a smaller version of the Emergency Response Plan of Action for public water systems serving less than 500 people. The DWP provides assistance when requested by public water systems to help complete the Emergency Response Plan of Action.

|  |
|--|
| <b>109</b> Emergency Response Plan of Action were distributed during the reporting period. |
|--|

### **III. Capacity Development Services Funded All or in Part by the DWP**

#### **A. Water System Operator Certification and Training**

##### **1. Operator Certification Program**

Operators of Maine's public water systems are the first and foremost protectors of the safety of drinking water. Maine's water systems span a wide spectrum of complexities and sizes with each and every operator responsible for the same end results: safe drinking water and adequate water supply for sanitary and fire protection. The Board of Licensure of Water System Operators assures that operators meet certain standards through evaluating experience and education through application review and performance through successful completion of a nationally verified examination. The Operator Certification Program serves to assist operators in achieving

and maintaining this professionalism, through offering and finding appropriate training and assuring appropriate operator coverage at public water systems.

Water systems are defined through a process of grading points, Class I to IV in both treatment and distribution categories according to complexity and population served. Operators of these systems must show competency by successfully completing examinations in both treatment and distribution categories. Very Small Water Systems operators are another classification that covers both treatment and distribution characteristics of systems with less than a population of 500.

In 2013, Maine moved to computer-based examinations, proctored by Applied Measurements Professionals. Examinations may be taken prior to application for licensure. Also, Maine does not require sequential examinations and licensure.

|  |
|--|
| <b>128</b> new water operator licenses issued during the reporting period. |
|--|

|                                       |
|---------------------------------------|
| <b><u>2011 Operator Licensing</u></b> |
|---------------------------------------|

|                                |
|--------------------------------|
| 1,243 water operators licensed |
|--------------------------------|

|  |
|--|
| 68 water operators did not renew their license |
|--|

|  |
|--|
| 11 water operators with Operator-In-Training license |
|--|

|                                       |
|---------------------------------------|
| <b><u>2012 Operator Licensing</u></b> |
|---------------------------------------|

|                                |
|--------------------------------|
| 1,090 water operators licensed |
|--------------------------------|

|  |
|--|
| 87 water operators did not renew their license |
|--|

|  |
|--|
| 13 water operators with Operator-In-Training license |
|--|

|                                       |
|---------------------------------------|
| <b><u>2013 Operator Licensing</u></b> |
|---------------------------------------|

|                                |
|--------------------------------|
| 1,057 water operators licensed |
|--------------------------------|

|  |
|--|
| 63 water operators did not renew their license |
|--|

|   |
|---|
| 3 water operators with Operator-In-Training license |
|---|

License holders must earn continuing education credits for license renewal. The number of training contact hours required for license renewal depends on the classification of the license. The following table illustrates the two-year requirements.

| <b>Training Contact Hour Renewal Requirements</b> |                           |
|---|---------------------------|
| Very Small Water System                           | 6 Training Contact Hours  |
| Class I   | 12 Training Contact Hours |
| Class II  | 18 Training Contact Hours |
| Class III   | 24 Training Contact Hours |
| Class IV  | 24 Training Contact Hours |

## **2. Capacity Development Training Reimbursement Fund**

The Capacity Development Training Reimbursement Fund allows training providers to receive reimbursement for training water operators and water system owners. The purpose of the Training Reimbursement Fund is to subsidize the costs associated with training water system personnel/operators on specific topics identified by the Drinking Water Program. The topics are developed annually, with input from DWP staff, training requests, and topics of water system interest. Example topics are:

- Water Operator Exam Preparation Training
- Source Water Protection Training
- Security and Emergency Preparedness
- Drinking Water Sampling
- Drinking Water Chemicals and Materials in contact with Drinking Water
- Water Profession Regulatory Update
- Energy Management and Water Efficiency
- Trustee Training
- Asset Management

**1,438** water system personnel received training under the Capacity Development Training Reimbursement Fund.

**\$130,525** was reimbursed to technical assistance providers under the program.

## **3. Maine Rural Water Association Technical Assistance**

The DWP fully funds two Water Quality Specialist positions at the Maine Rural Water Association (MRWA). The Specialists provide direct, on-site technical service and water operation advice to small water systems that serve a population of less than 10,000. They also serve as a liaison between water systems and the DWP. The DWP also works closely with the MRWA to provide education to water system personnel. These activities directly support technical, financial and managerial capacity.

**2,569** MRWA technical assistance on-site visits during the reporting period.

**\$605,201** was provided to MRWA for technical assistance to water systems in the reporting period.

## **4. Maine Water Utilities Association Training**

The Maine Water Utilities Association (MWUA) is an association of water systems allied to provide mutual aid through the sharing of information and resources. The DWP provides funds to the MWUA to provide for the education and training of water system personnel. These activities directly aid water systems in technical and managerial capacity, and financial capacity. The trainings include webcasts, training seminars and underwriting attendance costs for small system operators at the MWUA's bimonthly meetings.

**1,902** water system personnel attended training seminars held by MWUA during the reporting period.

**\$143,430** was provided to MWUA for training of water system personnel during the reporting period.



## **5. Rural Community Assistance Program Solutions Training**

Rural Community Assistance Program (RCAP) Solutions has an agreement with DWP to provide asset management training to public water systems that are receiving construction loan funds on a partial forgiveness basis (i.e., a certain percentage of the loan – 45 or 75 percent – may be “forgiven” repayment if the receiving system is disadvantaged). RCAP delivers a structured training onsite to the receiving water system. Most recently, RCAP has been closely involved with the DWP and the US EPA introducing Check Up Program for Small Systems (CUPSS), a software-based, asset management program to water systems.

**14** disadvantaged water systems received asset management training during the reporting period.

**\$27,439.76** was provided to RCAP for training of water system personnel during the reporting period.

## **IV. Capacity Development Collaboration with Other Organizations**

The DWP directly collaborates with several professional organizations and governmental agencies on drinking water issues. Some of the closest and most active collaborations are with the Maine Municipal Bond Bank, the Maine Rural Water Association, the Maine Water Utilities Association and Rural Community Assistance Program Solutions.

### **A. Maine Municipal Bond Bank**

The Maine Municipal Bond Band (MMBB) is the financial administrator for the Drinking Water State Revolving Fund. The State Match bond money and the matching federal money are processed by the MMBB. Grant funds, construction loan money, administrative finances and other operating funds are administered by the MMBB for the DWP. All of the activities jointly pursued by the DWP and the MMBB are ones that foster capacity development in any number of ways.

### **B. Maine Rural Water Association**

Maine Rural Water Association (MRWA) provides capacity building services such as assisting public water systems with developing their annual Consumer Confidence Report, vulnerability assessments and emergency response planning, income surveys, rate cases, grant writing and loan assistance, water leak detection and line location, compliance with drinking water regulations, and source protection. The DWP and MWRA collaborate on assisting water systems with significant capacity issues by determining the issues and bringing them back into compliance. The DWP and MWRA work together to assist water systems during emergency events.

### **C. Maine Water Utilities Association**

The Maine Water Utilities Association (MWUA) represents the water supply profession through education, legislation, policy and networking. The Association holds bi-monthly meetings, shares information and ideas, and provides mutual support. Some DWP employees serve on MWUA committees in advisory and participatory roles, such as the Education and Operations Committee, Public Awareness Committee, Water Resources Committee, Technology Committee, and Water Use Efficiency Committee. DWP employee participation in these committees helps the DWP understand the current and emerging needs of Maine’s public water systems, and allows the DWP opportunities to provide valuable Capacity Development guidance to the water utilities.

## **D. Rural Community Assistance Program Solutions**

Rural Community Assistance Program (RCAP) Solutions provides direct assistance to communities and water systems. The DWP refers a number of water systems to RCAP for help in capacity building. RCAP specialists assist these water systems by providing advice, education and direction on water system operations, budgeting and financial analysis, asset management, strategic planning, administrative operations and improving overseer board operations.

## **E. Maine Water/Wastewater Agency Response Network**

The Maine Water/Wastewater Agency Response Network (MEWARN) allows water and wastewater systems to receive rapid mutual aid and assistance from other water and wastewater systems to restore services damaged by natural or man-made incidents. MEWARN was formed in December 2008 through partnerships among public and private water and wastewater utilities and key representatives from Maine's water and wastewater professional associations, Maine Drinking Water Program, Maine Department of Environmental Protection, Maine Emergency Management Agency and the US Environmental Protection Agency Region 1. This collaboration facilitates pre-disaster planning and training, and encourages sharing information and lessons learned from other disasters.

The heart of MEWARN is the mutual aid and assistance agreement, which addresses members' responsibilities, procedures and protocols for providing mutual aid, legal and liability concerns, and issues related to crossing jurisdictional boundaries to provide emergency aid. MEWARN offers a practical and affordable approach with multiple benefits for utility members and Maine's communities. The MEWARN is available to all public water and wastewater systems in Maine. Participation is voluntary, and is not mandated by any local, state, or federal regulation, and there is no fee to participate.

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| <b>117</b> water and wastewater utilities have joined MEWARN. |
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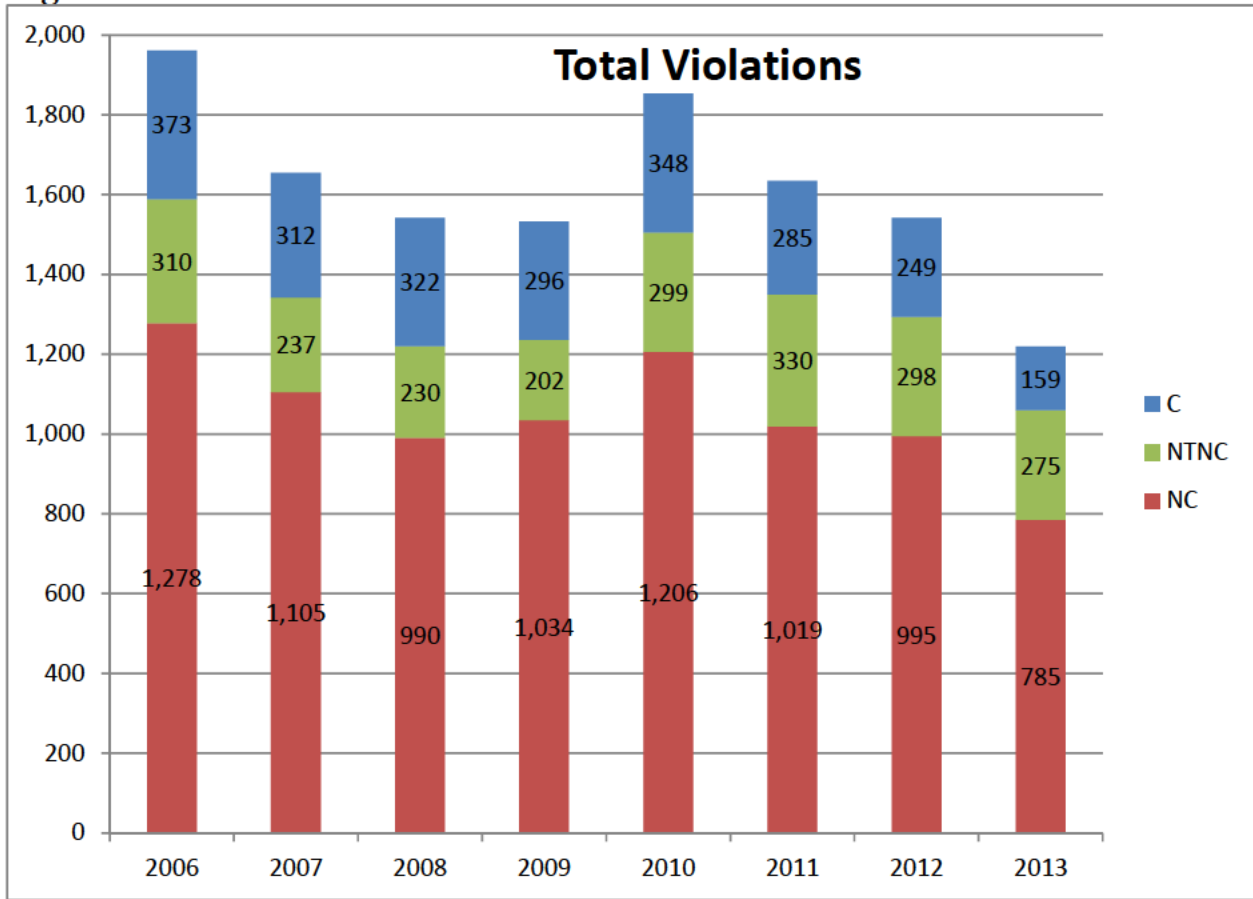
## **V. Compliance and Enforcement**

DWP Compliance and Enforcement supports Capacity Development by assuring that public water systems are adhering to the regulatory requirements of the SDWA. The Compliance staff provides technical assistance to public water systems on sampling or treatment techniques. They are responsible to see that sampling, testing, and reporting requirements are met. As an educational outreach, compliance staff attend public meetings to inform the public on drinking water issues and regulatory requirements. Through enforcement activities, public water systems that have long-term violations are returned to compliance. Enforcement staff assist public water systems by negotiating settlements and guiding suppliers with required actions, in order to return them to compliance. Required actions include the installation of proper water treatment, adhering to sampling schedules and by interconnecting to municipal systems to solve chronic problems. Enforcement staff work with partnering state agencies, to assure that public access to safe drinking water is assured. Most notably, enforcement staff work with the Maine CDC's Health Inspection Program within the Department of Health and Human Services, to coordinate efforts in confirming that lodging establishments, restaurants and other eating establishments are complying with the SDWA. The Maine Rural Water Association works with enforcement staff to provide education to water systems, to assist in public notification and to bring recalcitrant systems back into compliance.

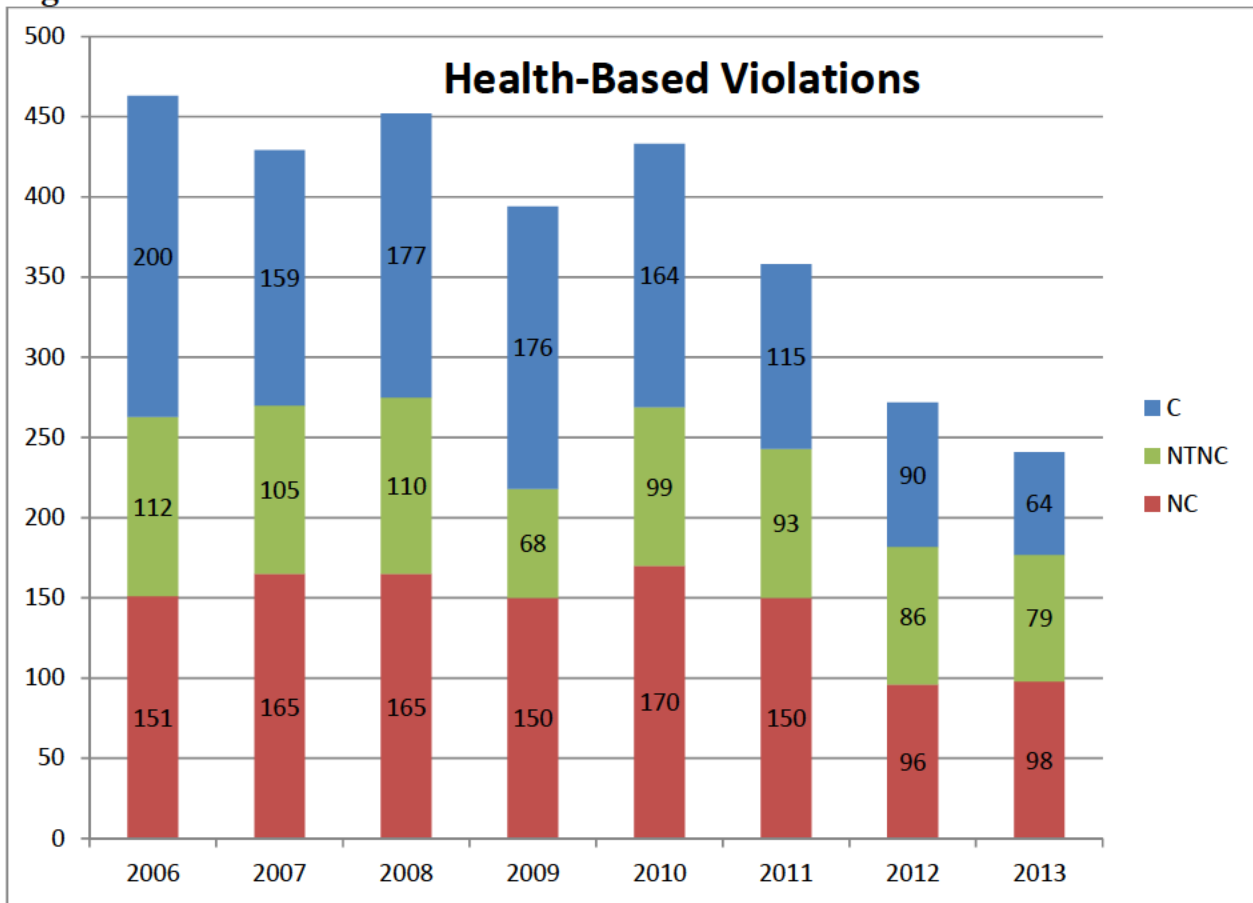
Figures 1, 2 and 3 on the next pages show the number of total violations, which are then broken down into health-based and non-health based violations. Each bar is broken down into

Community (C), Non-Transient, Non-Community (NTNC), and Transient, Non-Community (NC) water systems.

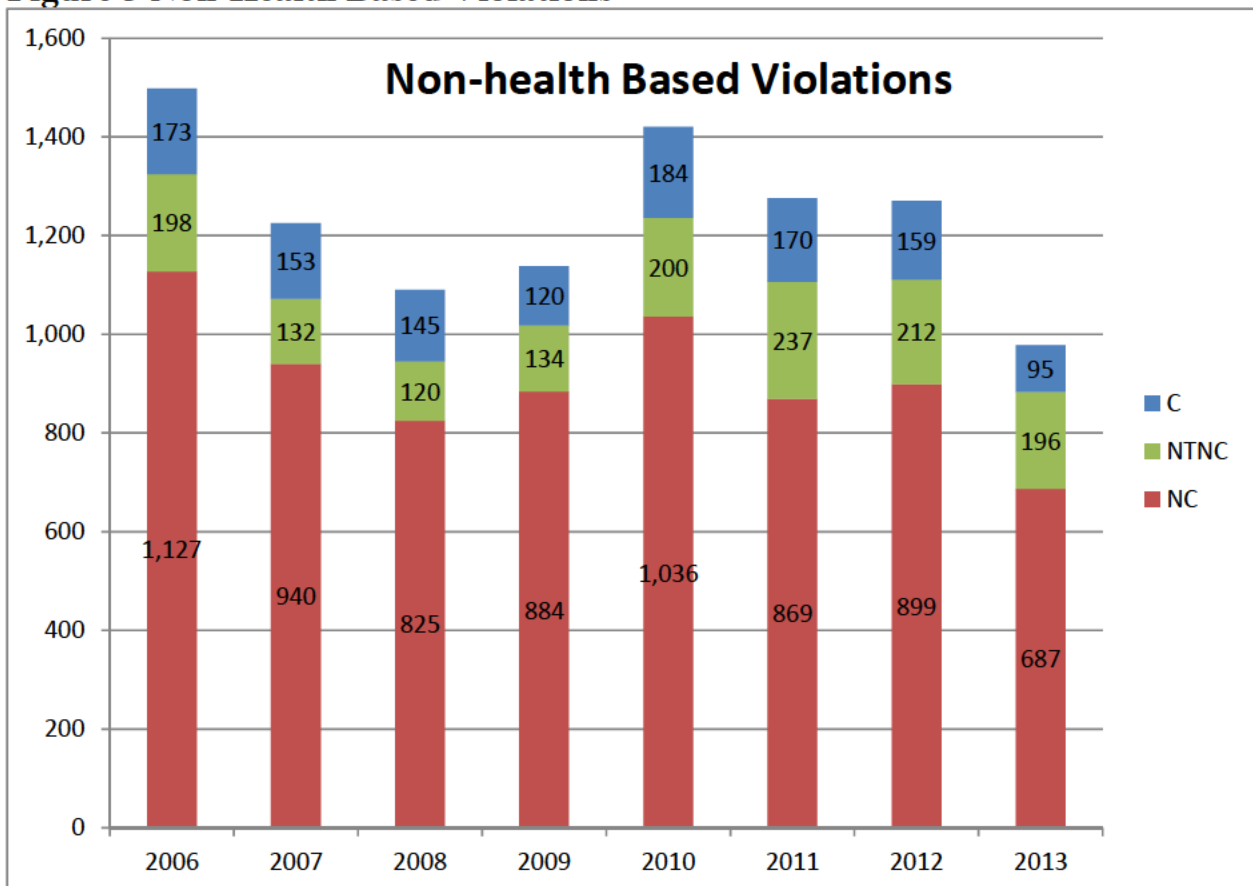
**Figure 1 Total Violations**



**Figure 2 Health-Based Violations**



**Figure 3 Non-Health Based Violations**



## **Progress Towards Improving Technical, Managerial and Financial Capacity**

The Drinking Water Program works to ensure safe drinking water in Maine, to protect public health, by administering and enforcing drinking water and subsurface wastewater regulations, providing education, as well as technical and financial assistance.

The existing structures and activities detailed in the report that enable progress toward Capacity Development will remain in effect. These approaches are natural and lend themselves well to enhancing Capacity Development.

The DWP loan and grant programs are very successful and will continue for as long as state and federal funding sources are available. Water systems are very appreciative of the funding assistance they receive from the DWP, as this assistance allows them to undertake projects that they would not have been able to complete without funding opportunities offered by the DWP. During the reporting period, the DWP provided water systems with over 32 million dollars in loan and grant funding.

On-site technical assistance is very important in helping water systems maintain and improve their technical, managerial and financial capacity. Over 3,900 on-site visits were made to water systems across Maine by DWP staff and Maine Rural Water Association Water Quality Specialists during the reporting period. On-site visits ensure that a water system's infrastructure is adequate to provide clean, safe drinking water to their consumers, water system operators and trustees understand their roles and responsibilities, and the water system has adequate financial oversight to be a viable business. The vast majority of Maine's public water systems serve less than 500 people and the vast majority of violations are issued to these small water systems. Because small systems have very limited resources, the efforts of DWP staff and the Maine Rural Water Association Water Quality Specialists is critical in helping water systems understand the current regulations and how to properly operate and maintain their water systems. The successful decreases in violations as shown on Figures 1 through 3 are in part due to the focused efforts to provide on-site training and assistance.

Training is very important to ensuring that water operators are staying up-to-date with current regulations and technologies. Water operators are required to take training to renew their water operator licenses every two years. The DWP and other industry organizations strive to provide training that will build an operator's knowledge on the operation and maintenance of a public water system. All training must have a direct link to water quality, water supply, or protection of public health.

The progress over the past three years in improving public water system "capacity" has increased public health protection through helping water systems reliably serve safe drinking water. Safe, reliable and affordable drinking water is fundamental to the wellbeing and the economic prosperity of communities across the State. The efforts of men and women who work every day to keep safe drinking water flowing to our home and businesses extends lives, protects our communities and makes life more enjoyable.