

Rhode Island Department of Health Center for Drinking Water Quality

Capacity Development Program Annual Implementation Report

July 1, 2018– June 30, 2019



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Introduction

The Rhode Island Department of Health, Center for Drinking Water Quality (RIDOH) is pleased to submit its 2018 Capacity Development Annual Program Implementation Report. This report is required by Section 1420 of the 1996 Amendments to the Safe Drinking Water Act (SDWA) and to maintain compliance with requirements of the Environmental Protection Agency (EPA) Drinking Water Revolving Loan Fund Capitalization Grant. The report covers the period of July 2018 through June 2019 and is presented annually to the EPA – Region I. Copies are available on the state Department of Health website or by contacting melissa.orpentuz@health.ri.gov.

The Public Water System Supervision Program (PWSS) is an essential component of the Rhode Island Department of Health's (RIDOH) mission to prevent disease and promote public health. Since 1976 the EPA has annually received a Congressional appropriation under section 1443(a) of the Safe Drinking Water Act to assist states, territories, and tribes in carrying out their PWSS programs.

In Rhode Island, RIDOH has been delegated primary enforcement responsibility (Primacy) for the PWSS program. In partnership with the Rhode Island Infrastructure Bank, RIDOH applies for and receives an annual capitalization grant. This grant allows RIDOH to develop and implement the PWSS program to adequately enforce the requirements of the SDWA and ensure that water systems comply with national primary drinking water regulations.

Key activities carried out under the PWSS program include:

- Developing and maintaining state drinking water regulations;
- Developing and maintaining an inventory of public water systems throughout the state;
- Developing and maintaining a database to house compliance information on public water systems;
- Conducting sanitary survey inspections;
- Reviewing plans and specifications;
- Providing technical assistance to managers and operators;
- Maintaining a program to ensure that consumers are regularly informed about the quality of the water they receive; and
- Certifying laboratories to analyze drinking water to determine compliance with regulations.

States use capacity development to efficiently target the technical, financial, and managerial needs of public water systems and then directly address those needs through specific activities that help systems enter and obtain and maintain compliance.

Rhode Island's Capacity Development Program

The Safe Drinking Water Act includes the following capacity development provisions:

1. New community water systems (CWS) and non-transient non-community (NTNC) water systems that begin operation after October 1, 1999 must first demonstrate capacity;
2. Public water systems that lack adequate capacity are prohibited from receiving assistance from the Drinking Water State Revolving Loan Fund (DWSRF) unless assistance is directly related to improving the system's technical, managerial, or financial capacity; and
3. States must develop and implement a strategy to assist public water systems in acquiring and maintaining adequate capacity.

The State of Rhode Island implemented the activities discussed in this report in accordance with Section 1420(c) of the Safe Drinking Water Act. Neither the State's legal authority to implement the new systems program or the control points have been modified during the reporting period.

Capacity Development Strategy for New Systems

New systems must have sufficient capacity to meet national primary drinking water regulations (NPDWR) as a requisite to becoming licensed as a water supplier in Rhode Island. A listing of new community and non-transient, non-community water systems licensed to operate within the past three state fiscal periods (July 1, 2016 – June 30, 2019) is provided in Appendix A on page 14.

Rhode Island uses the EPA Enforcement Targeting Tool (ETT) as one indicator for assessing a system's lack of the capacities required for sustainability. Based on the ETT method for calculation of enforcement priority points, no new systems were determined to be in significant non-compliance with drinking water standards related to federally regulated contaminants during this reporting period.

Program staff continuously monitor new systems and offer assistance when appropriate or when requested by system personnel. Two of the seven new systems received violations during this three-year period, both of which were related to failure to monitor (one for coliform and the second for disinfection by-products).

In October 2018, DWQ implemented a new regulatory requirement that new system representatives must attend an in-person meeting prior to final approval and initial operations that provides the opportunity to meet with rule managers and subject matter experts to ensure that they understand the obligations of owning a PWS.

In-person meetings were implemented and capacity development continues to work closely with all DWQ staff to develop and complete supporting documentation and resources to assist systems in achieving and maintaining compliance.

During the reporting period, one system (St. Elizabeth's Manor, #RI2980478) attended a required new PWS meeting.

Capacity Development Strategy for Existing Systems

Rhode Island's public drinking water systems face a wide array of challenges in meeting the standards enforced under the PWSS program. To assist existing water utilities, RIDOH maintains a Capacity Development Strategy. Capacity enables public water system personnel to plan for and provide water that is safe to drink today and into the future while consistently complying with the statutory and regulatory requirements of the Safe Drinking Water Act.

The three major components of capacity identified in the 1996 Amendments to the Safe Drinking Water Act are:

- **Technical Capacity** – the ability of water system staff to operate and maintain infrastructure;
- **Managerial Capacity** – the expertise required of the system personnel to administer the system's overall operations; and
- **Financial Capacity** – the resources and fiscal management that support the cost of operating a water utility.

The strategy includes identifying methods for targeting assistance and intervention to proactively help systems comply with drinking water regulations.

This is accomplished through the development of contracts, services, and tools that take into consideration the abilities of water system personnel, the expertise of industry service providers, and the experience of RIDOH staff, to develop partnerships that provide wide-ranging services to the owners and operators of public water systems to help achieve sustainable operations over time.

Capacity Development Tools and Assistance

These services and tools include training initiatives which are included in RIDOH’s work plan and are funded through DWSRF set-asides.

The term capacity development gained prominence in the 1990s, in part due to the growing realization that providing technical solutions and/or funding are not sufficient in themselves to address most development challenges. This led to a renewed focus on the underlying human and organizational capabilities that need to be strengthened, through working more closely with the individuals, organizations and communities that were the intended beneficiaries of development support to drive sustainability.

During the reporting period, RIDOH engaged with partner organizations and executed its internal strategy to enhance system sustainability, provide systems with critical tools and resources, and strengthen operator knowledge and skills. RIDOH awarded and initiated a new contract to provide financial and managerial training to any small system receiving SRF funding. RIDOH also expanded the eligibility for its Facilities Improvement Plan (FIP) contract to include nonprofit transient systems to better align with SRF funding eligibility.

Vendor	Service	Outcomes
Global Environmental Consulting (GEC)	Consumer confidence reports for systems serving 10K or fewer	77 reports
Northeast Water Solutions, Inc.	Facilities Improvement Plans for C + nonprofit NTNC + nonprofit TNC systems serving 10K or fewer	3 systems received services
Northeast Water Solutions, Inc.	Engineering services for C + nonprofit NTNC + nonprofit TNC systems serving 10K or fewer	5 systems received services
New England Water Works Association	Free operator training opportunities	534 training contact hours delivered
RCAP Solutions	Financial and managerial training for small PWS receiving SRF funds	Contract started 2/1/2019, services initiated for one system

RIDOH also maintains a cooperative agreement with University of Rhode Island (URI) Cooperative Extension. Under this agreement, URI provides:

- technical assistance and outreach to municipal officials, water suppliers, and private drinking water well users on assessment results and local protection measures;
- outreach to professionals who play a role in public water supply protection; and
- resources to build audience capacity to adopt source water protection measures.

Identifying Systems in Need of Assistance

RIDOH's public water system capacity development strategy includes a prioritization framework designed to identify systems in need of capacity assistance and provide proactive intervention.

Staff evaluates data from multiple sources to determine leading indicators that a system can benefit from technical, managerial, and financial capacity-building. They review compliance data, sanitary survey reports, Drinking Water State Revolving Fund-related documentation, quarterly enforcement targeting tool (ETT) reports, and annual licensing applications.

Staff also works closely with internal colleagues and external partners to establish productive information-sharing practices that support accelerated identification of systems in need. Upon hire of a dedicated capacity development program coordinator in August 2016, staff reinitiated communication channels across the department and initiated formal mechanisms through which to view capacity development from a multi-disciplinary perspective. RIDOH also hired an outreach specialist in February 2019 who is charged with creating documentation, guidance, and instructional materials that address system needs and support system personnel in increasing their knowledge of water system operations and management.

Building Partnerships

Changing perceptions and creating an understanding of water quality and quantity issues requires progressive and proactive rethinking of our partnerships and responsibilities. The Capacity Development program brings RIDOH's drinking water program functions together to partner with suppliers and consumers who all must play a role in assuring the capacity of new public water utilities and strengthening existing water system capabilities.

RIDOH's Public Water System Capacity Development Program has begun to meet this challenge by implementing a set of documents and resources to assist systems with common challenges and obstacles.

Documentation developed during this reporting period includes:

- Obtaining and Maintaining a Drinking Water Operator License (web content)
- Operator Certification Eligibility Infographic
- Installing a Raw Water Sample Tap
- Consumer Confidence Report (CCR) Completion Guidance
- Emergency Information for PWS (web content)
- Emergency Information for Consumers (web content)

Capacity Development, Compliance, and Enforcement

By partnering with compliance and enforcement staff, we have been successful in assisting not only smaller utilities such as schools, factories, restaurants, and day care centers that maintain their own water supply, but also major municipal water systems.

The Center for Drinking Water Quality regulates 481 public water suppliers. The assistance provided through our capacity development and compliance partnership includes:

- Prioritization of need based upon compliance history;
- On-site technical assistance and one-on-one trouble shooting to aid in the return-to-compliance;
- Assistance developing water system best practices and standard operating procedures;
- Guidance documents and fact sheets designed to reinforce regulatory requirements and educate new system owners and staff; and

Capacity development staff attend DWQ's weekly compliance meeting in which all open enforcement actions and sanitary survey findings are reviewed by a cross-functional team. This team is comprised of representation from compliance, inspections, and engineering and has proven to be an invaluable mechanism through which to identify potential areas for capacity development intervention and support.

The performance of the State's public drinking water systems during 2018, based on compliance with water quality criteria requirements in the Safe Drinking Water Act, is evaluated and compared to previous years. This evaluation is assessed using a "performance indicator" value. This value is determined by calculating the days each water system is in compliance with all maximum contaminant levels (MCLs) and treatment techniques, and the population the system serves, and comparing this to the number of days the system is serving that population. An indicator value of 1.0 would indicate that all public water systems were in compliance with MCL and treatment technique requirements for the entire year. During 2018 this indicator was 0.948.

Capacity Development and Operator Certification

Ensuring a competent workforce is a key element in the protection of public health and the provision of safe drinking water. Individuals who operate public water supply treatment and distribution systems must be certified and licensed by RIDOH. Once licensed, operators adhere to continuing education and experience requirements prior to license renewal or upgrade. There are approximately 720 licenses for treatment and distribution operators issued in the State, with some individuals holding multiple licenses and certifications.

Operator training initiatives are included in RIDOH's work plan and are funded through DWSRF set-asides. We ensure adequate training opportunities for new and recertifying operators through a board review and approval process of qualified course providers.

During the reporting period, NEWWA delivered ten trainings and granted a total of 534 contact hours. The program selected topics to address compliance issues, violation trends, and small PWS compliance including:

- Sanitary Survey Preparation and Follow-Up Compliance
- Sound Procedures for Drinking Water Sampling,
- Pumps and Pumping Overview,
- Ethics and Water System Operations, and
- Hands-On Disinfection with Chlorine

RIDOH does not directly reimburse operators for expenses related to training and exams. These learning opportunities are free of charge and open to all operators while targeting those from small public water systems.

There are ninety-one (91) community and eight-three (83) non-transient, non-community public water systems that are required to comply with the state's operator certification rules and regulations. The state has classified all of these systems for distribution and/or treatment. Presently all are under the supervision of a certified operator.

Capacity Development and the Drinking Water State Revolving Fund (DWSRF)

Capacity development staff partner with DWSRF program staff to develop outreach materials, guidance documents, and system-specific assistance navigating the application process. Through our partnership with the Rhode Island Infrastructure Bank (RIIB), RIDOH implements a marketing and outreach strategy incorporating additional guidance and procedures to streamline the borrowing process and encourage small systems to consider the DWSRF when undertaking infrastructure projects in the future.

Beginning in 2018, the SRF Intended Use Plan (IUP) incorporated allowances for \$100,000 in principal forgiveness for small systems receiving SRF funding. Additional subsidy may be granted based on a system's median household income. To ensure long-term water system sustainability, RIDOH has included additional capacity development requirements into the funding process. These included a Facilities Improvement Plan (FIP) and up to ten hours of financial and managerial training.

RIDOH also offers engineering services to small systems through SRF set-asides.

In 2018, RIDOH approved, and the Rhode Island Infrastructure Bank funded, eight new loans totaling \$69,643,496.

Strategy Modifications

There were no modifications to the existing system strategy during the reporting period. A formal review of implementation of the existing strategy was not conducted during the reporting period.

Conclusion

More than 18 years have elapsed since Rhode Island has instituted its Capacity Development Strategy. The Strategy provides the framework for RIDOH and the Center for Drinking Water Quality to identify unique approaches that would facilitate the continuous sharing of knowledge and development of tools that have become so important to the provision of safe drinking water and sustainable water systems in our state.

This report has described the activities of each component of the Capacity Development Program. Realizing that challenges are different for each type of public water system, RIDOH, our industry peers, and our partners at the EPA have taken steps to identify these challenges.

Together, we aim to ensure that the programs we currently have in place continue to successfully address the needs of our systems, and the assistance we provide in the future is:

- targeted to pro-actively enhancing water system capacity;
- focusing on education and outreach and
- strengthening collaborations between Capacity Development and other drinking water programs.

Together, Capacity Development and all of RIDOH's drinking water programs have had a substantial and positive impact on the health and safety of the people of Rhode Island.

Appendix A

New Community (C) and Non-Transient Non-Community (NTNC) Systems
Reporting Period—7/1/2016-6/30/2019

PWS ID#	NAME	System Type	ACTIVITY_DATE	POPULATION COUNT
RI2980474	DAEDALUS OFFICE PARK	NTNC	07-Aug-17	120
RI2980476	DOWLING VILLAGE	NTNC	01-Sep-19	2500
RI2980475	EXETER JOB CORPS CENTER	C	06-Feb-18	300
RI2980473	HOPKINTON, TOWN OF	C	11-Mar-19	125
RI2980471	NEWPORT HOSPITAL - LIFESPAN	NTNC	01-Feb-17	981
RI2980469	RHODE ISLAND HOSPITAL - LIFESPAN	NTNC	06-Jan-17	6996
RI2980478	ST ELIZABETH MANOR, EAST BAY	C	17-Apr-19	220



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