



RHODE ISLAND DEPARTMENT OF HEALTH  
Office of Drinking Water Quality



2013

ANNUAL REPORT

## RETHINKING THE VALUE OF WATER

Rhode Islanders place a special value on our states' water resources as recreational facilities, wildlife refuges, freshwater ecosystems, and economic assets. The value of these natural resources cannot be understated - yet a disconnect exists.

Growing demand due to expanding populations, aging infrastructure, global scarcity, climate change, and the conservation conundrum combine to create a dilemma unrecognized by most. The underlying costs of these impacts are largely invisible; making it easy to take clean water for granted. The EPA estimates that approximately \$1 trillion will be needed to pay for water and wastewater infrastructure improvements over the next 20 years

Numerous studies have found that the majority of Americans support strengthening water infrastructure and have expressed a willingness to pay more for improvements. However, they also find that too few people truly understand exactly how water infrastructure and associated problems impact their personal lives.

We must work to increase understanding of the role water plays in our lives. Changing perceptions and creating an understanding of water quality and quantity issues will require a rethinking of our partnerships and responsibilities. Suppliers, regulators, and consumers must all play a role in promoting and supporting the renewal of water infrastructure to ensure the safety and affordability of our water sources for future generations.

This year program staff formed HEALTH's Drinking Water Week Committee and the Know Your H<sub>2</sub>O campaign to educate the public about the role of our public water systems and the importance, value, safety, and reliability of the state's drinking water resources. The campaign kick-off occurred in conjunction with Drinking Water Week 2014. Events and information are located on-line at: <http://www.health.ri.gov/water/about/yourwater/>

*Copies of this document are also available upon request in braille, large print, audiocassette, and as an electronic file on a computer disk. Contact the Rhode Island Department of Health, Office of Drinking Water Quality, Three Capitol Hill, Providence, RI 02908. Phone number: 401-222-6867, or Relay RI (TDD) at 711.*

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# CHAPTER 1

# FINANCIALS

Since 1976 the EPA has annually received a Congressional appropriation under section 1443(a) of the Safe Drinking Water Act (SDWA) to assist states, territories, and tribes in carrying out their Public Water System Supervision (PWSS) programs. The State receives an annual grant to develop and implement the PWSS program to enforce the requirements of the SDWA and ensure that water systems comply with National Primary Drinking Water Regulations.

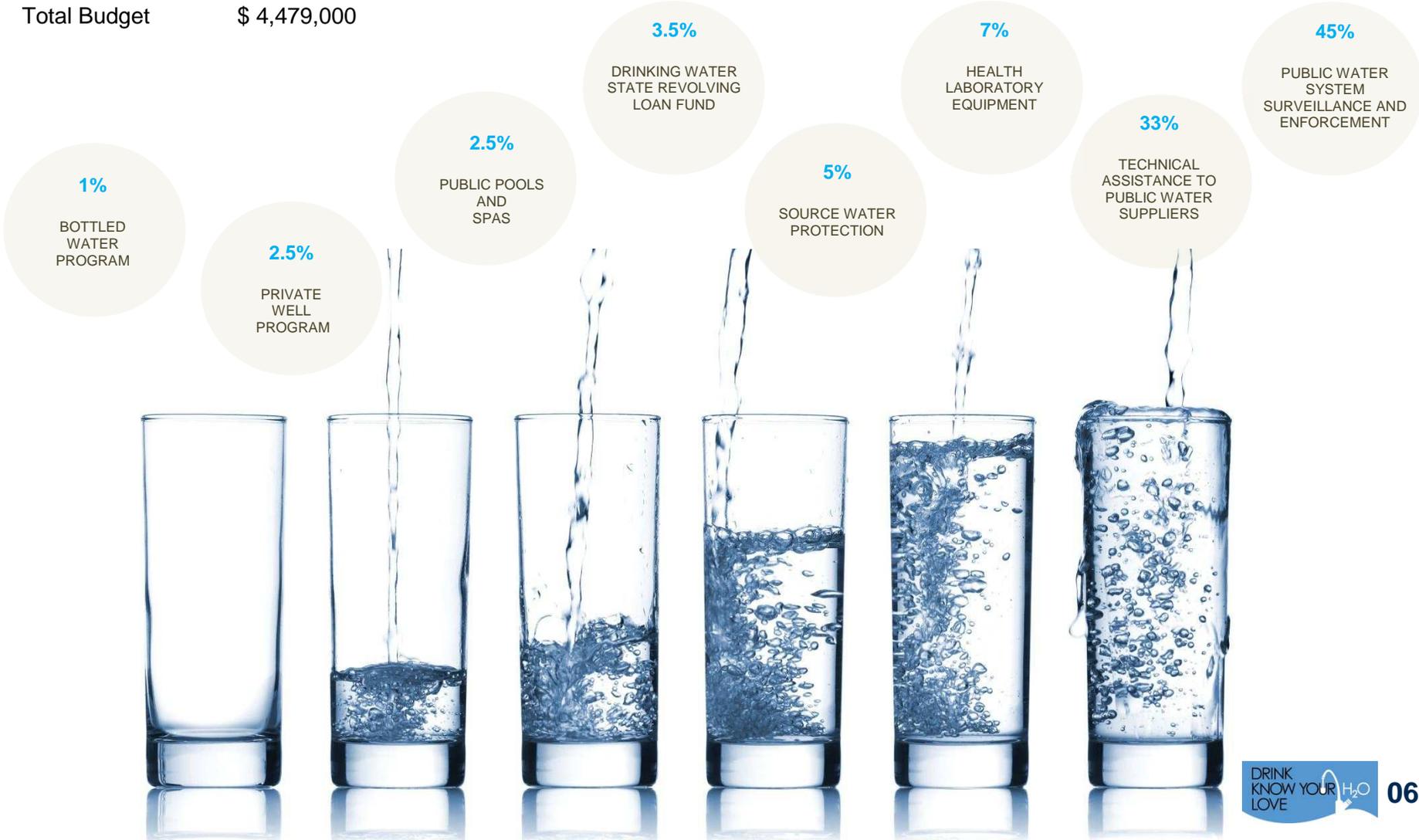
In 2013, we invested \$4,479,000 in state and federal funds in our public water systems. In addition to general supervision and oversight, here is where the money went.

Program Budget

The budget for this office during this period:

Federal Funding	\$ 3,952,000
State Funding	409,000
Restricted Receipt	<u>118,000</u>
Total Budget	\$ 4,479,000

PROGRAMS & INITIATIVES SUPPORTED BY FUNDS



# CHAPTER 2

# OVERSIGHT

In Rhode Island the Department of Health is the agency responsible for carrying out the PWSS program. Key activities 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 hold compliance information on public water systems;
- conducting sanitary surveys, conformance and compliance inspections, and technical, managerial, and financial assessments of public water systems;
- reviewing public water system plans and specifications;
- providing technical assistance to managers and operators of public water systems;
- carrying out a program to ensure that public water systems regularly inform their consumers about the quality of the water that they are providing;
- certifying laboratories that can perform the analysis of drinking water that will be used to determine compliance with the regulations; and
- carrying out an enforcement program to ensure that the public water systems comply with all of the state's requirements.



# PUBLIC DRINKING WATER

The mission of the Public Drinking Water Program is to protect and promote the health and safety of the people of Rhode Island by ensuring the quality of the state's public drinking water supplies for use by Rhode Island residences, businesses, hospitals, nursing homes, schools, restaurants, industry, and fire and emergency response. The Office of Drinking Water Quality works hard to maintain an excellent record of meeting this high priority public health responsibility.

# 486

Number of licensed public water systems in Rhode Island

Persons served by public water in Rhode Island	*1,108,325
Persons served by surface water systems	*870,004
Persons served by groundwater systems	*238,321
Public water systems	486
Community systems	89
Non-transient systems	78
Transient systems	319
Systems using surface water	30
Systems using groundwater	**456

\*Includes all populations, transient, residential, and workplace.

\*\*Some water systems use both ground and surface water (purchased and non-purchased).

# PUBLIC DRINKING WATER

Public water systems in Rhode Island range in size from large city systems that serve nearly 300,000 residents to small, rural, non-community transient systems, such as restaurants or convenience stores that utilize wells as their drinking water source.

3

TYPES  
OF  
PUBLIC WATER  
SYSTEMS

A public water system provides piped water to the public for human consumption. A public system has at least 15 service connections or regularly serves an average of 25 individuals daily for at least 60 days out of the year.

Community water systems serve at least 25 year-round residents, or have at least 15 service connections used by year-round residents.

Non-transient non-community water systems serve at least 25 of THE SAME people, for at least six months of the year. Schools and factories are examples.

Transient non-community water systems serve at least 25 DIFFERENT people for at least 60 days of the year. Restaurants, hotels and campgrounds are transient water suppliers.

# PRIVATE DRINKING WATER

The Private Well Program is the only source of public health information for more than 100,000 citizens and tourists who rely on private water systems for their drinking water. This program is critical to assuring safe and potable water supplies through the education of private well owners, state and local officials, and other involved parties on the proper construction, maintenance, operation, and testing of their wells.



Became the lead agency for receiving and keeping records of well installations

Delivered drinking water well protection workshops to help communities safeguard their drinking water through understanding patterns of ground water movement into private wells, the interaction of surface water and ground water, and general contaminant pathways

Provided technical support and assistance to private well owners in person, by phone and via email

Published an award-winning series of private well tip sheets providing an extensive online reference for well owners about their wells and water quality through a continued partnership with RI Department of Environmental Management and the University of Rhode Island Cooperative Extension Water Quality Program

# PRIVATE DRINKING WATER

All wells that will be used for a potable water supply must be tested before a certificate of occupancy may be granted for the building(s) it is intended to serve, whether new or previously occupied; and prior to the sale or transfer of ownership of real property; and whenever a new well or well field is installed that would serve as a new water source to an existing building(s).

HEALTH licenses Private Well Samplers and Water Quality Analysis Interpreters to assure the accuracy of required testing results and provides training and guidance to professionals that work with private wells within the state.

100,000 +

NUMBER OF INDIVIDUALS  
WHO RELY ON PRIVATE  
DRINKING WATER  
SYSTEMS FOR THEIR  
DRINKING WATER

12

NUMBER OF  
LICENSED WATER  
QUALITY SAMPLE  
INTERPRETERS IN  
THE STATE

48

NUMBER OF  
LICENSED WATER  
SAMPLERS IN THE  
STATE

# PUBLIC SPOOLS AND SPAS

In 2013 HEALTH licensed 404 public pools. Yearly (indoor) pools are licensed to operate from January 1 through December 31 of the year issued. Seasonal (outdoor) pools are licensed from June 1 through September 30 of the year issued. HEALTH collects and analyzes water quality samples for bacteria, free residual chlorine, and pH. Compliance data is available in Appendix III (page 53).

# 404

NUMBER OF  
LICENSED PUBLIC  
POOLS

Licensed Public Pools 2013			
Swimming Pools		Therapy Pools (Hot Tubs)	
Yearly	Seasonal	Yearly	Seasonal
121	210	61	12

## BOTTLED WATER

Bottled water is an increasingly popular beverage. More than 8.5 billion gallons are sold annually in the United States. The U.S. Food and Drug Administration (FDA) regulate bottled water as a food product. Under the Federal Food, Drug, and Cosmetic Act (FFDCA), manufacturers are responsible for producing safe, wholesome and truthfully labeled food products, including bottled water products. The FDA has established specific regulations for bottled water including standard of identity regulations that define bottled water as “water that is intended for human consumption and that is sealed in bottles or other containers with no added ingredients except that it may optionally contain safe and suitable antimicrobial agents”.

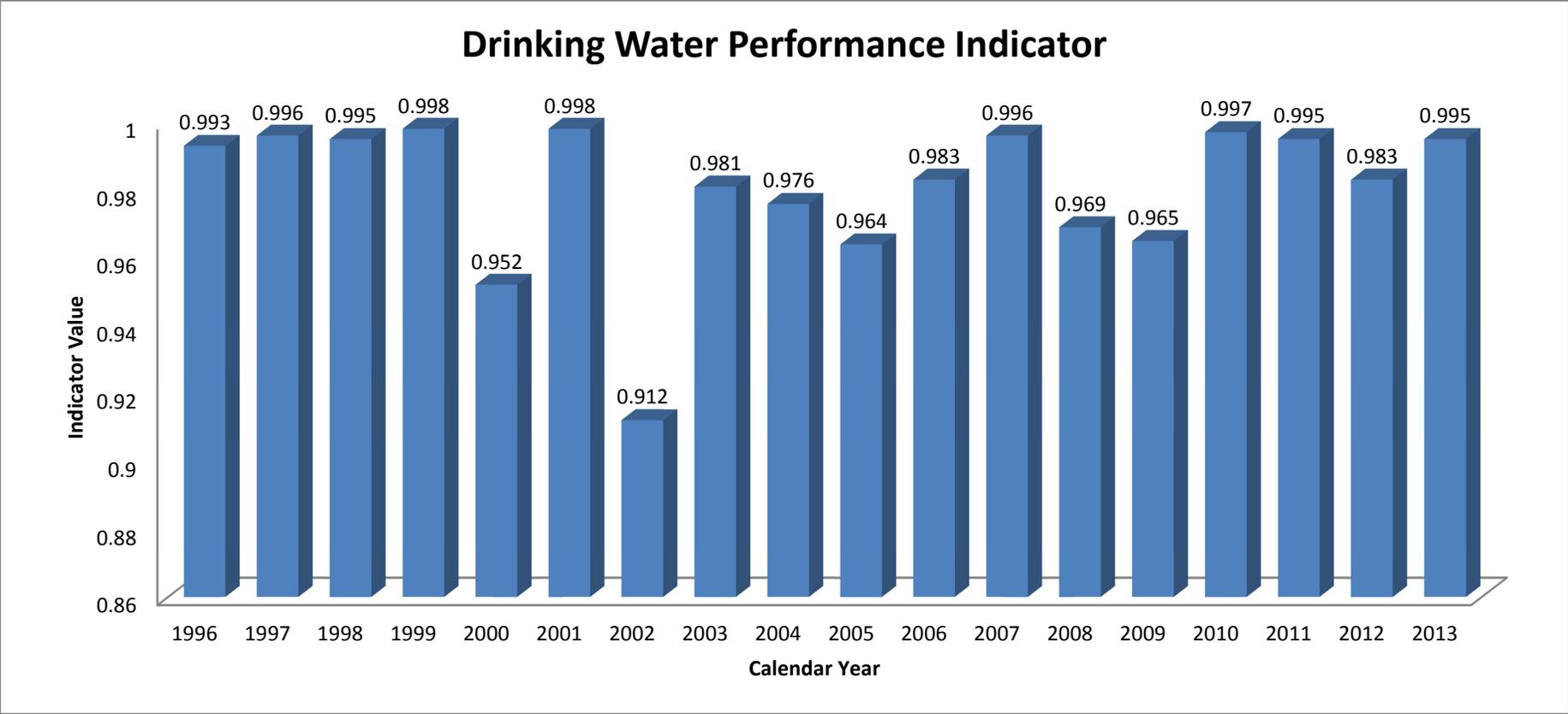
Bottled water may come from several sources: artesian well water, public water systems, mineral water, purified water, sparkling water, or spring water. Prerequisites for obtaining a bottling permit are: submittal and approval of analytical data for the water source and product, label approval, satisfactory inspection reports, and approval of the permit application.



# CHAPTER 3

## IMPACT AND PERFORMANCE

The performance of the State's public drinking water systems during 2013, 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, shown in the chart to the right, 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.



$$\text{Indicator Value} = \frac{\sum (\text{PWS Population Served}) \times (\text{Days in Compliance With MCLs and Treatment Technique Requirements})}{\sum (\text{PWS Population Served}) \times (\text{Total Days in Operation})}$$

# CAPACITY DEVELOPMENT

Rhode Island's public drinking water systems face a wide array of challenges in meeting the public health protection standards aimed at ensuring safe drinking water.

HEALTH maintains a capacity development strategy aimed at developing the financial, managerial, and technical capacities of qualifying water system personnel.

The mission of the capacity development program is to identify methods for assisting water utilities achieve sustainable operations over time.

To accomplish this HEALTH maintains various contracts with industry professionals and organizations to provide wide-ranging services to the owners and operators of public water systems.

91  
NUMBER OF  
COMMUNITY SYSTEMS  
RECEIVING CAPACITY  
DEVELOPMENT  
ASSISTANCE

76  
NUMBER OF NON-  
COMMUNITY, NON-  
TRANSIENT SYSTEMS  
RECEIVING CAPACITY  
DEVELOPMENT  
ASSISTANCE

## CAPACITY DEVELOPMENT

These services and training initiatives are included in HEALTH's work plan and are funded through DWSRF set-asides. We provide extensive opportunities for training and exam preparation through contracts with industry assistance providers. The focus of 2013 training has been on further developing system sustainability, owner and operator partnerships, and emergency preparedness. To meet these training objectives HEALTH has contracted

with:

- The Atlantic States Rural Water and Wastewater Association,
- New England Water Works Association,
- The University of Rhode Island Cooperative Extension,
- The Cadmus Group, Inc.,
- The Horsley Witten Group, and
- Northeast Water Solutions Inc..

11

NUMBER OF SYSTEMS  
RECEIVING CONTRACT  
OPERATIONS  
GUIDANCE

11

NUMBER OF SYSTEMS  
RECEIVING  
ENGINEERING  
ASSISTANCE

10

NUMBER OF SYSTEMS  
RECEIVING ASSISTANCE  
DEVELOPING A  
MANAGEMENT GUIDE

## 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 HEALTH. Once licensed, operators adhere to continuing education and experience requirements prior to license renewal or upgrade. There are 603 licensed and certified treatment and distribution operators in the state.

Training initiatives are included in HEALTH's work plan and are funded through DWSRF set-asides. We provide extensive opportunities for training and exam preparation through contracts with industry assistance providers. In partnership with these contractors HEALTH provided:

- technical assistance and one-on-one circuit rider assistance,
- individual and group training and operator certification exam preparation,
- small water system management guides,
- facility improvement plans,
- contract operator guidance, and
- small water system emergency planning workshops.

HEALTH does not directly reimburse operators for expenses related to training and exams. Instead, HEALTH provides training, exam preparation, and continuing education opportunities through these contracts. Training is free of charge to the operators of small systems and includes full-day, half-day and multiple session trainings.

# OPERATOR CERTIFICATION

There are eighty-eight (88) community and seventy-four (74) 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.

## Distribution Certifications

License Type	License Count
DO Class 1-Full	96
DO Class 1-Grandfathered	29
DO Class 1-Operator in Training	24
DO Class 2-Full	64
DO Class 2-Grandfathered	2
DO Class 2-Operator in Training	4
DO Class 3-Full	92
DO Class 3-Grandfathered	0
DO Class 3-Operator in Training	5
DO Class 4-Full	32
DO Class 4-Grandfathered	1
DO Class VSS-Full	34
DO Class VSS-Grandfathered	24
DO Class VSS-Operator in Training	6
DO Provisional	1

## Treatment Certifications

License Type	License Count
TO Class 1-Full	64
TO Class 1-Grandfathered	16
TO Class 1-Operator in Training	16
TO Class 2-Full	65
TO Class 2-Grandfathered	4
TO Class 2-Operator in Training	02
TO Class 3-Full	67
TO Class 3-Grandfathered	5
TO Class 3-Operator in Training	6
TO Class 4-Full	22
TO Class 4-Grandfathered	2
TO Class VSS-Full	15
TO Class VSS-Grandfathered	6
TO Class VSS-Operator in Training	4
TO Provisional	1

## DRINKING WATER STATE REVOLVING LOAN PROGRAM

The Safe Drinking Water Act Amendments of 1996 authorized the creation of a Drinking Water State Revolving Loan Fund (DWSRF) program to help public water systems finance the costs of infrastructure needed to achieve and/or maintain compliance with SDWA requirements and to meet the public health objectives of the act.

Our office, in conjunction with the Rhode Island Clean Water Finance Agency (RICWFA), operates the DWSRF program with funds awarded through an annual EPA capitalization grant. Among the many program functions, staff is responsible for compilation of an infrastructure project priority list; environmental review of proposed projects; oversight of construction; and loan payment review, disadvantaged business enterprise oversight, RI prevailing wage and Davis-Bacon requirement oversight and review and approval of contractor payment requests. Capacity development and operator certification are key loan program qualification components and are reviewed during the application process.

6

NUMBER OF LOANS  
APPROVED AND  
FUNDED DURING  
SFY2013

\$69,772,000

TOTAL DOLLAR  
VALUE OF ALL  
DWSRF LOANS  
CLOSED DURING  
SFY 2013

# DRINKING WATER STATE REVOLVING LOAN PROGRAM

The financial indicators summarized in the table below are tools used to help understand and assess the DWSRF program. The loan assistance provided as a percent of funds available for loans indicator measures the dollar amount of executed loan agreements to the cumulative dollar amount of funds available for loans. It is one indicator which measures the “pace” of the program, by gauging how quickly funds are made available to finance DWSRF projects. Rhode Island is proceeding to convert its DWSRF available funds into executed loans at a rate of 104% indicating that RI’s rate has increased over SFY12, and the program continues to outpace the national and regional average – the signature of a secure DWSRF program pace.

<b>SFY13 DWSRF Financial Indicators for Rhode Island</b>	<b>National Leveraged Average</b>	<b>Regional Leveraged Average</b>	<b>Rhode Island</b>
Loan assistance provided as a percent of funds available	92.8%	98.0%	104.0%
Federal return on investment	237.4%	219%	210.2%
Disbursements as a percent of assistance provided	89.4%	74.5%	67.5%
Net return after repaying bonds excluding subsidy	N/A	N/A	\$217,684
Net return as a percent of contributed capital.	N/A	N/A	0.2%
Set-aside spending rate	86.5%	92.4%	91.3%

# CHAPTER 4

# PROTECTING PUBLIC HEALTH

HEALTH'S approval of public water utility infrastructure plans and specifications and regular inspection of facilities and operations is integral to our mission of public health protection.



# ENGINEERING REVIEW

The engineering approval process is designed to help ensure the sustainability of the system and the safety of water sources. Once an applicant has demonstrated that a project has adequately met the requirements for public water facilities on paper, projects may proceed and inspections are conducted during and after construction.

**The Office of Drinking Water Quality Engineering Review Program is comprised of three units:**

## **Drinking Water Facilities Plan Review and Approval**

This unit conducts the technical and engineering reviews of infrastructure projects under the Public Water System Surveillance Program in accordance with the Safe Drinking Water Act (SDWA). Infrastructure includes all drinking water projects such as new wells, water distribution systems, and on-site drinking water treatment whether new or rehabilitative in nature.

## **Drinking Water State Revolving Loan Fund Plan Approval**

Projects submitted for funding through the DWSRF must comply with specific requirements of the funding program as well as several federal statutes and executive orders that are referred to as cross-cutting authorities. Engineering staff assigned to the review of these infrastructure projects are committed to assisting applicants with the various approvals required for this specialized process.

## **Public Pools and Spas Plan Approval and Inspections**

HEALTH ensures that public swimming pools and spas are constructed and operated in a safe and sanitary manner. Inspections of filtering systems, water quality, and other sanitary and safety concerns are performed routinely.

# INSPECTIONS AND SITE VISITS

All aspects of a public water system (water source, treatment facility, operation and maintenance) require periodic inspection to help ensure that the water system continues to supply safe drinking water to the public.

During 2013, staff conducted sanitary survey inspections as listed in the detailed chart provided. Follow-up inspections are conducted to ensure deficiencies are corrected. Additional inspections were conducted in direct response to requests for technical assistance from water systems in partnership with the capacity development program.

Survey personnel also performed compliance inspections of new construction or significant improvements in water system infrastructure, and 30 Level II Assessments in response to violations of the Revised Total Coliform Rule.

Water System Inspections	2013
Total number of Water systems inspected	94
Total population served	474,443
Number of community systems inspected	27
Population served	461,735
Number of transient Non-community systems Inspected	40
Population Served	4,628
Number of Non-transient, non-community systems inspected	27
Population Served	8,080

## EMERGENCY PLANNING AND SECURITY

Developing a proactive policy for hurricane preparedness and emergency situations can help eliminate expensive and unexpected repair and maintenance projects; and help to ensure the consumers trust in the important services provided by drinking water utilities.

During 2013 HEALTH's drinking water emergency planning and security program continued to collaborate with the capacity development and operator certification programs. The goals of this collaboration are to assist public water systems in preparing for the unpredictability of New England weather and the hurricane season and to provide the information and tools necessary for system assessment and communications.

### 2013 Program Highlights

- Completed an update to HEALTH's Drinking Water Program Emergency Operations Plan;
- Developed the 2013 Hurricane Preparedness Brochure for Public Water Systems;
- Developed and implemented the Public Water System Emergency Communications policy;
- Completed 4 public water system emergency plan development workshops

58

NUMBER OF INDIVIDUALS  
PARTICIPATING IN  
EMERGENCY PLAN  
DEVELOPMENT WORKSHOPS

28

NUMBER OF EMPLOYEES WHO  
PARTICIPATED IN HEALTH'S  
DRINKING WATER PROGRAM  
EMERGENCY OPERATIONS  
TABLETOP EXERCISE

# EMERGENCY PLANNING AND SECURITY



# WATER QUALITY MONITORING

There are many sources for water pollution. Contamination of drinking water can occur at multiple points, including in the water source, through inadequate water treatment processes, in storage tanks, and in distribution systems (the pipes that carry water to homes, businesses, schools, and other buildings). Treating water to remove or kill disease-causing contaminants is critical to the protection of public health.

## MAXIMUM CONTAMINANT LEVELS

Under the Safe Drinking Water Act, EPA sets maximum legal limits on the levels of certain contaminants in drinking water (MCL). The legal limits reflect both the level that protects human health and the level that water systems can achieve using the best available technology.

EPA rules also set treatment requirements, water-testing schedules, and sampling methods that water systems must follow.

HEALTH is the agency responsible for ensuring that the water systems in Rhode Island comply with these rules. Compliance Data for 2013 is included in Appendix-II (page 40).

## CHEMICAL CONTAMINANT RULES

Chemical Contaminants were regulated in phases, which are collectively referred to as the Chemical Phase Rules. HEALTH regulates more than 90 contaminants in three contaminant groups: Inorganic Contaminants (IOCs), Volatile Organic Contaminants (VOCs), and Synthetic Organic Contaminants (SOCs). A list of contaminants and their maximum contaminant levels (MCLs), is maintained on line at <http://water.epa.gov/drink/contaminants/index.cfm>. The rules apply to all public water systems (PWS). PWS type, size, and water source determine which contaminants require monitoring for that system.

## Radionuclides

Most drinking water sources have very low levels of radioactive contaminants ("radionuclides"), most of which are naturally occurring, although contamination of drinking water sources from human-made nuclear materials can also occur.

# WATER QUALITY MONITORING

## Arsenic

Arsenic is a toxic chemical element that is unevenly distributed in the Earth's crust in soil, rocks, and minerals. It enters drinking water supplies from natural deposits in the Earth from agricultural and industrial practices.

## Total Coliform

There are a variety of bacteria, parasites, and viruses which can cause health problems when humans ingest them in drinking water. Testing water for each of these germs would be difficult and expensive. Instead, water quality and public health workers measure for the presence of bacteria in drinking water using coliform bacteria as an indicator. The presence of any coliforms in drinking water suggests that there may be disease-causing agents in the water.

## Disinfectants and Disinfection Byproducts (DBPs)

In many cases, source water from a lake, river, reservoir or groundwater aquifer needs to be disinfected to inactivate (or kill) microbial pathogens. A major challenge for water suppliers is how to balance the risks from microbial pathogens and disinfection byproducts. In 2013 there were 48 water systems regulated by this rule. This includes 21 systems that purchase and distribute water that has been treated with a disinfectant. 2013 was the final year of Stage 1 of the DBP Rule. Affected water systems are now subject to Stage 2 of the rule, which improves public health protection by requiring water systems to comply with the MCL's at each sample location instead of a distribution system average. One water system and its three purchasers have received a two-year extension to Stage 2 for capital improvements.

## Ground Water Rule

Although a greater population gets their drinking water from surface water sources, the majority of the state's water systems have groundwater sources. The purpose of the rule is to reduce disease incidence associated with disease-causing microorganisms in drinking water. The rule establishes a risk-based approach to target ground water systems that are vulnerable to fecal contamination. Groundwater systems that are identified as being at risk of fecal contamination must take corrective action to reduce potential illness from exposure to microbial pathogens. The rule applies to all systems that use groundwater as a source of drinking water.

# WATER QUALITY MONITORING

## Surface Water Treatment Rules (SWTR)

These rules establish filtration and disinfection treatment requirements for the control of pathogens for all public water supplies that utilize surface water sources or groundwater sources that are under the influence of surface water. In Rhode Island there are 9 water systems that are covered by these rules. All of these water systems provide filtration and disinfection as part of their treatment processes. The SWTR requires an additional 22 systems that are secondary sellers of surface water to maintain a chlorine residual throughout their distribution system.

## Lead & Copper Rule

The Lead and Copper Rule is intended to minimize delivery of lead and copper in water provided by community and non-transient non-community water systems. Lead and copper enter drinking water primarily through plumbing materials. The treatment technique requires systems to monitor drinking water at customer taps. Excessively corrosive water, or excessive particulate lead, triggers a requirement for treatment, public education, and if applicable, lead service line replacement. The US EPA is now considering rule changes that will require different actions on the part of suppliers exceeding the action levels.

Seven water systems are currently exceeding either the lead or copper action level, down from thirteen in 2011. Of those seven, only two are community systems, while five non-transient systems are still having difficulty. All are taking appropriate action to resolve their problems.

Providence Water has been exceeding the lead action level since 2006, and has since been working to adjust its water chemistry to reduce corrosion; this effort is ongoing. Lead service line replacement in the distribution system has been halted, pending possible changes to the US EPA Lead and Copper Rule; a series of consent agreements have been in force requiring other actions to reduce the community's exposure to lead in water. These include continued monitoring, flushing and cleaning of the distribution system and pipe lining, and an expert panel convened in 2011 continues to advise Providence and the State on how best to resolve the corrosion problem.

# WATER QUALITY SAMPLING

Water quality sampling and testing not only ensures that each system complies with required monitoring, but more importantly, ensures the quality of the state's drinking water. HEALTH's laboratory continues to take an active role in assisting water systems with required water quality testing. During 2013, HEALTH's laboratory analyzed 5,691 water quality samples. The Office of DWQ evaluated 37,840 analytical results.

## HEALTH'S ROLE

- Test drinking water from Rhode Island public water systems for bacteria, organic and inorganic contaminants, minerals, and trace metals to determine safety and compliance with the Safe Drinking Water Act,
- Test potability of water from private wells,
- Analyze water samples in support of special pollution monitoring programs,
- Maintain analytical instrumentation to detect and measure the concentration of a variety of pesticides, volatile and synthetic organic pollutants in drinking water,
- Ensure the high quality of testing services,
- Operate the analytical laboratory certification program, and
- Maintain a list of laboratories certified for the analysis of drinking water, non-potable water and environmental lead.

# COMPLIANCE TRACKING

Compliance data is included herein for calendar year 2013. The 2013 Annual Compliance Report summary table, as required by the Safe Drinking Water Act amendments of 1996, can be found in Appendix – II (page 40).

During calendar year 2013, 164 violations of the Safe Drinking Water Act were reported by 123 of the State's public water systems. Of these 164 violations, 52 were water quality violations, 103 were monitoring violations, 3 were treatment technique violations, and 6 were a CCR reporting violation. A summary of the violations is presented in Appendix – I (page 35).

## Quality Violations

Quality violations occur when the monitoring results for a particular contaminant exceed the drinking water standard within a specific time period. Public water systems must monitor for 90 contaminants including inorganic compounds, volatile organic compounds, synthetic organic compounds, radionuclides, and pathogens.

During 2013, 30 of the public systems exceeded a drinking water standard for a total of 52 violations. Of those 52 violations, 45 were bacteriological violations 6 were for nitrate, and 1 was for Trihalomethanes (TTHM's).

## Monitoring Violations

Monitoring and reporting violations occur when a water system fails to perform the required monitoring for a particular contaminant within a specified time period, and/or fails to report the results by the tenth of the following month, as required. During 2013, 90 of the state's water systems failed to perform the required monitoring and/or reporting within the specified time period. In all, 109 monitoring and reporting violations were reported.

## Public Notification Violations

Public Notification violations occur when a water system fails to perform the required public notification within the required time period. During 2013, none of the public water system failed to perform Public Notification.

# COMPLIANCE TRACKING

## Public Education Violations

Public Education violations occur when a water system fails to perform the required public education within the required time period. During 2013, none of the public water systems failed to perform Public Notification.

## Consumer Confidence Report Violations

Consumer Confidence Report violations occur whenever a Community public water system fails to provide a Consumer Confidence Report (CCR) to their consumers by July 1 of the following calendar year, and /or fail to submit a Consumer Confidence Report Certification form to the Office of Drinking Water Quality by October 1 of that same year. During 2013, 6 public water systems failed to provide a Consumer Confidence Report on time.

## Treatment Technique Violations

Treatment Technique violations occur when a water system fails to comply with the required treatment. During 2013, 3 of the state's water systems failed to maintain proper treatment.



# COMMUNITY WATER SYSTEMS

## APPENDIX I

## VIOLATIONS 2013

NUMBER OF  
VIOLATIONS

	NUMBER OF VIOLATIONS
<b>Quality</b>	
KENT COUNTY WATER AUTHORITY (ACUTE TCR)	1
KINGSTON WATER DISTRICT (TCR)	1
NEWPORT, CITY OF (TTHM)	1
PASCOAG UTILITY DISTRICT (TCR)	1
SOUTH KINGSTOWN SOUTH SHORE (TCR)	2
THE VILLAGE ON CHOPMIST HILL (TCR)	1
<b>Monitoring and Reporting</b>	
ABBEY LANE COMMUNITY ASSN., INC. (TCR)	1
BETHEL VILLAGE (PB&CU)	1
INDIAN CEDAR MOBIL HOME PARK (PB&CU)	1
JOHNSTON WATER CONTROL FACILITY-NARDOLILLO ST. (TCR)	2
LADD CENTER WATER SYSTEM (VOC)	1
MEADOWLARK, INC (NO3)	1
LINDHBROOK WATER COMPANY (PB&CU)	1
MOBIL VILLAGE, INC. (PB&CU)	1
PAWTUCKET-CITY OF (TT)	1
PASCOAG UTILITY DISTRICT, WATER DIVISION (CL)	1
PORTSMOUTH WATER & FIRE (TTHM/HAA5)	2
STONE BRIDGE FIRE DISTRICT (CL)	1
WARWICK-CITY OF (TTHM/HAA5)	2
WARWICK-POTOWOMUT (TTHM/HAA5)	2
LELAND POINT CONDOMINIUMS HOA, INC. (TCR)	2
<b>Consumer Confidence Report</b>	
BETHEL VILLAGE	1
CAMP E-HUN-TEE	1
CENTRAL BEACH FIRE DISTRICT	1
MAPLEHILL MOBIL HOME PARK	1
MOBIL VILLAGE, INC.	1
PRUDENCE ISLAND WATER DISTRICT	1
<b>Treatment Technique</b>	
PASCOAG UTILITY DISTRICT, WATER DIVISION (TT)	1
<b>COMMUNITY WATER SYSTEM, SUBTOTAL</b>	<b>34</b>

# NON-TRANSIENT NON-COMMUNITY WATER SYSTEMS

## VIOLATIONS 2013

NUMBER OF  
VIOLATIONS

<b>Quality</b>	
CHOPMIST HILL COMMUNITY CENTER (TCR)	3
<b>Monitoring and Reporting</b>	
ARCADIA CHILDRENS HOME (PB&CU)	1
CHOPMIST HILL COMMUNITY CENTER (PB&CU)	1
EARLY LEARNING CENTERS OF RI (PB&CU)	1
FOGARTY MEMORIAL SCHOOL (PB&CU)	1
JUST FOR KIDS (TCR,GWR)	2
NORTH SCITUATE ELEMENTARY (CL)	3
NORTH SMITHFIELD COMBAT COMMUNICATIONS (PB&CU)	1
PINEWOOD PARK SCHOOL (PB&CU)	1
PONAGANSETT HIGH SCHOOL (PB&CU)	3
SCITUATE VILLAGE SHOPPING CENTER (PB&CU)	1
<b>NON-TRANSIENT NON-COMMUNITY WATER SYSTEM, SUBTOTAL</b>	<b>18</b>

## VIOLATIONS 2013

NUMBER OF  
VIOLATIONS

Quality	
ALBACO, L.L.C. (TCR)	1
BEAVER RIVER GOLF (TCR)	1
BELLA RESTAURANT (TCR)	2
BURLINGAME RESERVATION-MAIN CAMP-LEGIONTOWN (TCR)	1
CAMP ALDERSGATE DINING (TCR)	1
CAMP RUSSELL-PUMP HOUSE MALLARD SHORES (TCR)	3
COLWELLS CAMPGROUND (TCR)	1
COVENTRY PINES GOLF CLUB (ACUTE TCR)	1
EAST BEACH LANDINGS CONDOMINIUMS (TCR)	5
GINNY –B FAMILY CAMPGROUND (TCR)	1
GRAYS ICE CREAM (TCR)	1
GREENWOOD HILL CAMPGROUND ASSOCIATION (TCR)	1
KILDUFF BROTHERS BUILDERS, INC. (TCR)	1
OAK EMBERS CAMPGROUND (NO3)	2
PHIL & ANNS SUNSET MOTEL (NO3)	1
RI SPORTS CENTER, INC. (ACUTE TCR, TCR)	2
RUSTIC TRI-VIEW DRIVE IN THEATRE-SNACK BAR (TCR)	3
SOUTH SHORE MENTAL HEALTH CENTER (TCR)	1
STEPPING STONE STABLES (NO3, TCR)	4
WOODLAND MEETING HOUSE (TCR)	2
WOONSOCKET CONGREGATION OF JEHOVAHS WITNESSES (TCR)	1
YMCA CAMP FULLER (ACUTE TCR,TCR)	6

**TRANSIENT  
WATER SYSTEMS (CONTINUED)**

## VIOLATIONS 2013

NUMBER OF  
VIOLATIONS

Monitoring and Reporting:	
ABBYS COUNTRY KITCHEN (TCR)	1
AGIOS INC DBA GENTLEMAN FARMER REST. (TCR)	2
AMERICAN LEGION-GORDON GREENE POST #27 (TCR)	1
BURLINGAME RESERVATION-MAIN CAMP-LEGIONTOWN (TCR)	1
BOWDISH LAKE CAMPING AREA, BROWN 1&2 (TCR)	1
BRANTALS RESTAURANT AND CATERING (NO3)	1
BURLINGAME RESERVATION-MAIN CAMP-LEGIONTOWN (GWR,TCR)	3
CAMP JORI (TCR)	1
CAMP PONAGANSETT (TCR)	1
COLWELLS CAMPGROUND (TCR)	1
CORNER BISTRO, LLC (TCR)	1
COVENTRY PINES GOLF CLUB (GWR, TCR)	2
D.B. MART (NO3)	1
DLM VARIETY DBA HARMONY CORNER STORE (TCR)	1
EAST BEACH LANDING CONDOMINIUMS (TCR, NO3)	5
EAST GREENWICH GOLF AND COUNTRY CLUB TCR)	1
FANTASTIC UMBRELLA FACTORY (NO3)	1
GINNY B CAMPGROUND (GWR,TCR)	2
HARMONY MARKETPLACE, LLC (NO3)	1
HIGHVIEW INN (TCR)	1
HOLIDAY ACRES, INC. (TCR)	1
LINDYS TAVERN (TCR)	1
LITTLE RHODY VASA PARK (TCR)	1
LUCKY (TCR)	1
MOTHER OF HOPE CAMP (#2) (TCR)	1
MOTHER OF HOPE DAY CAMP (TCR)	1
NARRAGANSETT INN (TCR)	1
NATIONWIDE DIESEL TECHNOLOGIES INC. (TCR)	1
NEW ENGLAND FARMS (TCR)	1
NUTZ (TCR)	1
RI SPORTS CENTER, INC. (GWR)	1
RICHMOND TOWN HALL (TCR)	1
ROUND MEADOWS CAMPGROUND (TCR)	1
RUSTIC TRI-VIEW DRIVE IN THEATR SNACK BAR (GWR, TCR)	3

# TRANSIENT WATER SYSTEMS (CONTINUED)

## VIOLATIONS 2013

NUMBER OF VIOLATIONS

SAKONNET GOLF CLUB (NO3)	1
SCITUATE VILLAGE SHOPPING CENTER (PB&CU)	1
SIMMONS CAFÉ AND MARKETPLACE (NO3)	1
ST. EUGENES CHURCH (TCR)	1
STONE HOUSE CLUB (GWR, TCR)	2
TDM ENTERPRISES, INC., DBA GATORS PUB (TCR)	1
THE HITCHING POST (NO3, TCR, GWR)	3
UNCLE RONNIES RED TAVERN (TCR)	1
WALKERS ROADSIDE STAND-BAKERY (TCR)	1
WEST GREENWICH TRAVEL CENTER (NO3,TCR)	4
WOON CONGREGATION OF JEHOVAHS WITNESSES (TCR)	1
YMCA CAMP FULLER (GWR,TCR)	10
<b>TRANSIENT WATER SYSTEM, SUBTOTAL</b>	<b>114</b>

APPENDIX II

Compliance Table

<p><b>State:</b> Rhode Island</p> <p><b>Reporting Interval:</b> January 1, 2013 through December 31, 2013</p>								
SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	<b><u>Organic Contaminants</u></b>							
2981	1,1,1-Trichloroethane	0.2	0	0			1	1
2977	1,1-Dichloroethylene	0.007	0	0			1	1
2985	1,1,2-Trichloroethane	.005	0	0			1	1
2378	1,2,4-Trichlorobenzene	.07	0	0			1	1
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			1	1
2980	1,2-Dichloroethane	0.005	0	0			1	1
2983	1,2-Dichloropropane	0.005	0	0			1	1
2063	2,3,7,8-TCDD (Dioxin)	3x10 <sup>-8</sup>	0	0			0	0
2110	2,4,5-TP	0.05	0	0			0	0
2105	2,4-D	0.07	0	0			0	0

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through  
December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2051	Alachlor	0.002	0	0			0	0
2050	Atrazine	0.003	0	0			0	0
2990	Benzene	0.005	0	0			1	1
2306	Benzo[a]pyrene	0.0002	0	0			0	0
2046	Carbofuran	0.04	0	0			0	0
2982	Carbon tetrachloride	0.005	0	0			1	1
2959	Chlordane	0.002	0	0			0	0
2380	cis-1,2-Dichloroethylene	0.07	0	0			1	1
2031	Dalapon	0.2	0	0			0	0
2035	Di(2-ethylhexyl)adipate	0.4	0	0			0	0
2039	Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
2964	Dichloromethane	0.005	0	0			1	1
2041	Dinoseb	0.007	0	0			0	0

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2032	Diquat	0.02	0	0			0	0
2033	Endothall	0.1	0	0			0	0
2005	Endrin	0.002	0	0			0	0
2992	Ethylbenzene	0.7	0	0			1	1
2946	Ethylene dibromide	0.00005	0	0			1	1
2034	Glyphosate	0.7	0	0			0	0
2065	Heptachlor	0.0004	0	0			0	0
2067	Heptachlor epoxide	0.0002	0	0			0	0
2274	Hexachlorobenzene	0.001	0	0			0	0
2042	Hexachlorocyclo-pentadiene	0.05	0	0			0	0
2010	Lindane	0.0002	0	0			0	0
2015	Methoxychlor	0.04	0	0			0	0
2989	Monochlorobenzene	0.1	0	0			0	0

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2968	o-Dichlorobenzene	0.6	0	0			1	1
2969	para-Dichlorobenzene	0.075	0	0			1	1
2383	Total polychlorinated biphenyls (PCB's)	0.0005	0	0			0	0
2326	Pentachlorophenol	0.001	0	0			0	0
2987	Tetrachloroethylene	0.005	0	0			1	1
2984	Trichloroethene	0.005	0	0			1	1
2996	Styrene	0.1	0	0			1	1
2991	Toluene	1.0	0	0			1	1
2979	trans-1,2-Dichloroethylene	0.1	0	0			1	1
2955	Xylenes (total)	10	0	0			1	1
2020	Toxaphene	0.003	0	0			0	0
2036	Oxamyl (Vydate)	0.2	0	0			1	1

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2040	Picloram	0.5	0	0			1	1
2037	Simazine	0.004	0	0			1	1
2976	Vinyl chloride	0.002	0	0			0	0
	<b>Subtotal</b>		0	0			1 (see notes #2)	1
	<b>Stage 1 Disinfectant Byproducts Rule</b>							
1009	Chlorite	1.0	0	0			0	0
1011	Bromate	0.010	0	0			0	0
1006	Chloramines	4.0	0	0			0	0
1008	Chlorine Dioxide	0.8	0	0			0	0
0999	Chlorine	4.0	0	0			3	2
2950	Total Trihalomethanes (Section 7.0 systems)	0.08	1	1			3	3

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2456	Total Haloacetic Acids	0.06	0	0			3	3
2920	Total Organic Carbon Removal Ratio	1.0			0	0	0	0
	<u>Subtotal</u>		1	1	0	0	9	9
	<u>Inorganic Contaminants</u>							
1074	Antimony	0.006	0	0			0	0
1005	Arsenic	0.05	0	0			0	0
1094	Asbestos (>10 micrometers)	7 million fibers/L	0	0			0	0
1010	Barium	2.0	0	0			0	0
1075	Beryllium	0.004	0	0			0	0
1015	Cadmium	0.005	0	0			0	0
1020	Chromium	0.1	0	0			0	0

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
1024	Cyanide (as free cyanide)	0.2	0	0			0	0
1025	Fluoride	4.0	0	0			0	0
1035	Mercury	0.002	0	0			0	0
1040	Nitrate	10	6	3			12	11
1041	Nitrite	1	0	0			7	7
1045	Selenium	0.05	0	0			0	0
SM	Sodium						0	0
1085	Thallium	0.002	0	0			0	0
1038	Total nitrate and nitrite	10 (as Nitrogen)	0	0			0	0
	<b>Subtotal</b>		6	3			12	11
	<b>Radionuclide MCLs</b>							
4000	Gross alpha	15 pCi/l	0	0			0	0
4010	Radium-226 and radium-228	5 pCi/l	0	0			0	0

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
4101	Gross beta	4 mrem/yr	0	0			0	0
	<b><u>Subtotal</u></b>		0	0			0	0
	<b><u>Total Coliform Rule</u></b>							
21	Acute MCL violation	Presence	4	4				
22	Non-acute MCL violation	Presence	41	23				
23,25	Major routine Major repeat						44	38
24,26	Minor routine Minor repeat						9	8
34	Groundwater Rule						13	9
75	Public Education						0	0
	<b><u>Subtotal</u></b>		45	27			66	55

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	<b><u>Surface Water Treatment Rule</u></b>							
36	Monitoring, routine/repeat						1	1
41, 43, 44	Treatment techniques				2	2		
	Unfiltered Systems							
31	Monitoring, routine/repeat						3	2
42	Failure to filter				0	0		
	<b><u>Subtotal</u></b>				2	2	4	3
	<b><u>Lead and Copper Rule</u></b>							
51	Initial lead and copper tap M/R		0	0			0	0
52,56	Follow-up or routine lead and copper tap M/R		0	0			9	8
53	Water Quality Parameters						1	1

**State:** Rhode Island

**Reporting Interval:** January 1, 2013 through

December 31, 2013

SDWIS Codes		MCL (mg/l)	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
57	OCCT/SOWT RECOM./STUDY						3	3
58,62	Treatment Installation				0	0		
65	Public education						0	0
	<b>Subtotal</b>		0	0	0	0	13	12
	<b>Consumer Confidence Reports (CCR)</b>							
71	CCR Complete failure to report (Major)						0	0
72	CCR Content Inadequacy (Minor)						6	6
	<b>Subtotal</b>						6	6
	<b>Totals</b>		52	31	1	1	111	97

**Notes:**

1) Values are in milligrams per liter (mg/l), unless otherwise specified.

2) Monitoring violations for Volatile Organic Compounds are issued as a single violation, not as violations for each of the 21 regulated contaminants.

## **Definitions for Appendix (Compliance Table)**

The following definitions apply to Appendix A (Compliance Table) above.

**Filtered Systems:** Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

**Inorganic Contaminants:** Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

**Lead and Copper Rule:** This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

*Initial lead and copper tap M/R:* SDWIS Violation Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

*Follow-up or routine lead and copper tap M/R:* SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

*Treatment installation:* SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

*Public education:* SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.

**Maximum Contaminant Level (MCL):** The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

**Monitoring:** EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

**Organic Contaminants:** Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

**Radionuclides:** Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

*Gross alpha:* SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

*Combined radium-226 and radium-228:* SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

*Gross beta:* SDWIS Contaminant Code 4101 for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

**Reporting Interval:** The reporting interval for violations to be included in the PWS Annual Compliance Report, which is to be submitted to EPA by July 1, 2010, is from January 1, 2010 through December 31, 2010.

**SDWIS Code:** Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

**SM:** State monitoring requirement for contaminants not regulated under the Safe Drinking Water Act (Sodium)

**Surface Water Treatment Rule:** The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the “Surface Water Treatment Rule” are to be reported for the following four categories:

*Monitoring, routine/repeat (for filtered systems):* SDWIS Violation Code 36 indicates a system’s failure to carry out required tests, or to report the results of those tests.

*Treatment techniques (for filtered systems):* SDWIS Violation Code 41 shows a system’s failure to properly treat its water.

*Monitoring, routine/repeat (for unfiltered systems):* SDWIS Violation Code 31 indicates a system’s failure to carry out required water tests, or to report the results of those tests.

*Failure to filter (for unfiltered systems):* SDWIS Violation Code 42 shows a system’s failure to properly treat its water. EPA will supply data for this violation code to the States.

**Total Coliform Rule (TCR):** The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one-month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

*Acute MCL violation:* SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

*Non-acute MCL violation:* SDWIS Violation Code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

*Major routine and repeat monitoring:* SDWIS Violation Codes 23 and 25 show that a system did not perform any monitoring. (One number is to be reported for the sum of violations in these two categories.)

*Minor routine and repeat monitoring:* SDWIS Violation Codes 24 and 26 show that a system did not did not comply with the required monitoring schedule, by failing to collect the required number of samples. . (One number is to be reported for the sum of violations in these two categories.)

**Treatment Techniques:** A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

**Unfiltered Systems:** Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

**Violation:** A failure to meet any state or federal drinking water regulation.

## APPENDIX III

# PUBLIC POOLS AND SPAS COMPLIANCE DATA

In 2013 HEALTH collected and analyzed a total of 759 water quality samples for bacteria, free residual chlorine, and pH

Swimming Pool Samples		Therapy Pool Samples	
Indoor	Outdoor	Indoor	Outdoor
373	176	190	20

Of the 759 samples collected the following is a breakdown of the violations recorded:

Bacterial Violations				Chlorine Violations				pH Violations			
Swim		Therapy		Swim		Therapy		Swim		Therapy	
Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
44	23	31	2	257	105	107	11	93	58	83	10

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

**THE HONORABLE  
LINCOLN D. CHAFEE, GOVERNOR**



**MICHAEL FINE, M.D.  
DIRECTOR**  
DEPARTMENT OF HEALTH

**JUNE A. SWALLOW, P.E.  
CHIEF**  
OFFICE OF DRINKING WATER QUALITY