Center for Drinking Water Quality
2023 Annual Report

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Message from the Chief of Drinking Water Quality

I am pleased to present the 2023 Annual Report of the Center for Drinking Water Quality on behalf of the Rhode Island Department of Health (RIDOH).[1] I wish to acknowledge the contributions of our many partners who share our mission to safeguard drinking water in Rhode Island. Highlighted in this message are a few of our focus areas from 2023, in addition to the numerous responsibilities our dedicated staff take on every day to protect and promote public health, as detailed in this report.

In 2023, we applied for and received the second year of the *Bipartisan Infrastructure Law* (BIL)/*Infrastructure Investment and Jobs Act* (IIJA) funding from the US Environmental Protection Agency (EPA), in partnership with the Rhode Island Infrastructure Bank (RIIB). In early 2023, we received approval from the Governor for eight new positions to fulfill the goals of this funding. The goals include investing in water infrastructure in disadvantaged communities and across Rhode Island, lead service line replacements, and addressing per- and polyfluoroalkyl substances (PFAS). To better meet the needs of public water systems, we have filled most of these positions, increased our recruitment efforts, reorganized our staff responsibilities to reduce response times and expanded our number of assistance contracts. RIDOH will continue to apply for this funding each year it is available and encourage public water systems to submit their applications to get placed on the Drinking Water State Revolving Fund Project Priority List.

Lead contamination of drinking water remained a top priority in 2023. RIDOH has been preparing for the initial lead service line inventory compliance date of October 16, 2024, established in the Lead and Copper Rule Revisions. EPA announced the proposed Lead and Copper Rule Improvements (LCRI) in November 2023, which are expected to be promulgated prior to mid-October 2024. The proposed LCRI includes updated requirements for lead service line replacements, compliance tap sampling, action levels, and prioritizing historically underserved communities. In addition, in June 2023, the *Rhode Island Lead Poisoning Prevention Act* was modified to add provisions pertaining to lead service lines, including requirements for service line inventories, public notice, and replacement of lead service lines. RIDOH published a new webpage to assist public water systems in understanding and meeting these requirements and has contracted with a vendor to provide technical assistance to water systems on their service line inventories. In 2023, RIDOH also continued the program for lead testing in schools and child care centers in partnership with the University of Rhode Island (URI).

Attention to per- and polyfluoroalkyl substances (PFAS) contamination of drinking water also continued in 2023. The first deadline for PFAS sampling under the 2022 *Rhode Island PFAS in Drinking Water, Groundwater, and Surface Waters Act* (RI PFAS Act) was July 1, 2023. Most of the samples were analyzed by the RIDOH State Health Laboratory. RIDOH worked closely with the water systems to understand their sampling requirements, their sampling results, and next steps. RIDOH also conducted outreach to private well owners. A 2023 modification to the RI PFAS Act required water systems that exceeded the interim state standard to enter into a consent agreement with RIDOH within 180 days after exceedance notification. This requirement replaced the original requirement that public water systems in exceedance have potable water by July 1, 2023. RIDOH spent the second half of 2023 compiling a report of the PFAS sampling results, applying for PFAS grants to assist the water systems, and implementing the requirements and intent of the RI PFAS Act. RIDOH worked with the exceeding water systems on their plans, consent agreements, and funding options. RIDOH drafted PFAS regulations to support the RI PFAS Act, while taking into account the federal regulation of PFAS in drinking water. RIDOH held a community review for comments in order to meet the RI PFAS Act's rulemaking deadlines.

[1] This Annual Report fulfills a number of RIDOH's reporting obligations with respect to its drinking water program, including: the statutory requirement to report annually to the Administrator of the Environmental Protection Agency on violations of national primary drinking water regulations by public water systems in the State (42 U.S.C. § 300g-3); the statutory requirement to report annually to the Rhode Island General Assembly regarding the sanitary laws (R.I. Gen. Laws § 23-1-9); and the statutory requirement to report annually to the Governor of Rhode Island on the status of private well contamination in the State (R.I. Gen. Laws § 23-1-5.5).

2023 was a productive year for our work on emergency preparedness and response; security; and resiliency. We participated in several trainings and workgroups on these topic areas. We made significant progress on updating our continuity of operation and incident response plans and on creating a cybersecurity plan. We also partnered with URI on utilizing their RI Coastal: Hazards Analysis, Modeling and Prediction (RI-CHAMP) tool to support water systems in their strategic planning and response to coastal hazards.

RIDOH welcomes your comments and suggestions, and I encourage you to contact the Center for Drinking Water Quality at 401-222-6867 or DOH.RIDWQ@health.ri.gov, or visit us online at http://health.ri.gov/water/about/yourwater/.

Sincerely,

Amy B. Parmenter
Chief Administrator
Center for Drinking Water Quality
Division of Environmental Health
Rhode Island Department of Health

Financials

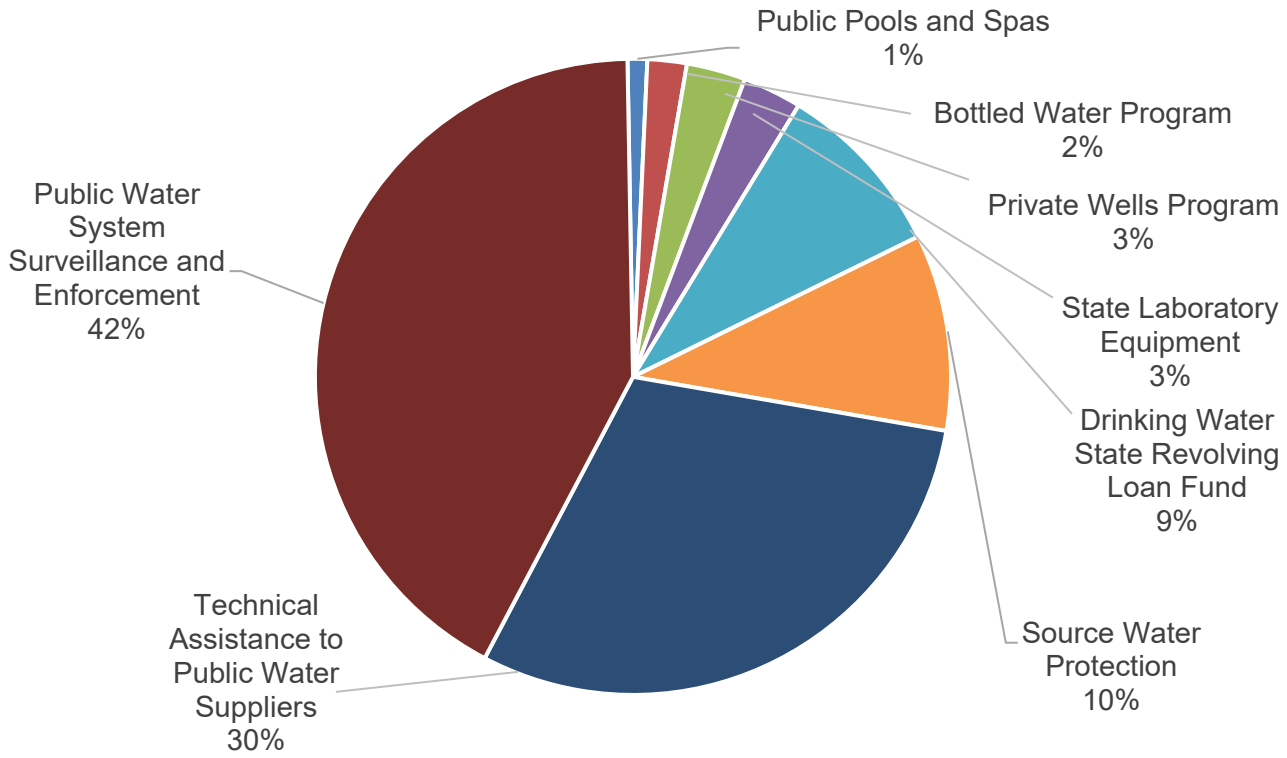
Since 1976, the EPA has received an annual Congressional appropriation under Section 1443(a) of the *Safe Drinking Water Act* (SDWA) to assist states, territories, and tribes in carrying out their Public Water System Supervision programs. Each year, RIDOH receives a grant to develop, implement, and enforce the requirements of the SDWA and to ensure that water systems comply with *National Primary Drinking Water Regulations*. Since 1996, when the SDWA was amended to create the Drinking Water State Revolving Fund (DWSRF), RIDOH has received additional federal funding in the form of set-asides from the loan fund capitalization grant to assure safe drinking water. In 2022, the *Bipartisan Infrastructure Law*/*Infrastructure Investment and Jobs Act* funding was incorporated into the DWSRF and is expected for five years.

In addition, RIDOH receives licensing fees for aquatic venues and bottled water that are applied as an investment back into Rhode Island's licensed aquatic venues and bottled water vendors through a Restricted Receipt account.

In 2023, RIDOH invested $4,718,402.38 in state and federal funds in Rhode Island's public water systems, aquatic venues, and bottled water vendors.

Federal Funds	**$4,267,519.10**
State Funds	**$325,882.49**
Restricted Receipts	**$125,000.79**
Total Budget:	**$4,718,402.38**

Distribution of Federal Funds, State Funds, and Restricted Receipts



Oversight

In Rhode Island, RIDOH is the agency responsible for carrying out the Public Water System Supervision (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 keep compliance information on public water systems;
- Conducting sanitary surveys, conformance inspections, and compliance inspections;
- Supporting technical, managerial, and financial capacity of public water systems;
- Reviewing public water system plans and specifications;
- Providing technical assistance to managers and operators of public water systems;
- Ensuring that public water systems regularly inform consumers about the quality of the water that they are providing;
- Certifying water operators and providing them training;
- Certifying laboratories that can perform the analysis of drinking water used to determine compliance with the regulations;
- Supporting source water protection, emergency response, and planning;
- Carrying out an enforcement program to ensure that public water systems comply with the State's requirements; and
- Partnering with the Rhode Island Infrastructure Bank to administer the Drinking Water State Revolving Fund Program for drinking water infrastructure projects.

Public Drinking Water

The mission of the Public Drinking Water Program is to protect and promote the health and safety of Rhode Islanders by ensuring the quality of the state's public drinking water supplies for use by Rhode Island households, businesses, hospitals, nursing homes, schools, restaurants, industry, and firefighting and emergency response services. RIDOH's Center for Drinking Water Quality works diligently and maintains an excellent record of meeting this high-priority public health responsibility.

Rhode Island Water Systems and Customer Counts, 2023

Public Water System Type	**System Count**
Community Systems	90
Non-Transient, Non-Community Systems	80
Transient, Non-Community Systems	303
Total	473
Public Water System Source Water	**System Count**
Systems using surface water	29
Systems using groundwater	444
Total	473[2]
Public Water System Source Water	**Customer Count**
Surface Water Systems	889,916[1]
Groundwater Systems	252,167[1]
Total	1,142,083[1]
Active Non-Operational Systems	18

[1] *Includes all populations (transient, residential, and workplace).*

[2] *Some water systems use both groundwater and surface water (purchased and non-purchased).*

Private Drinking Water

In Rhode Island, an estimated 120,000 people rely on private water systems for drinking water. In 2023, the Private Wells Program responded to more than 1,000 inquiries regarding well water quality. These inquiries came from residents, realtors, lenders, and other state agencies.

The Private Wells Program conducted ongoing private well workshops for residents, realtors, and regulators. These were moved to hybrid in-person and online platforms as a result of the success in conducting them remotely throughout the COVID-19 pandemic. The Private Wells Program also conducted sessions of the program's online Private Well Water Sampling seminar, which was developed with the Rural Community Assistance Partnership (RCAP) and can be taken to fulfill the training requirement for the RIDOH Private Water System Sampler license. In addition, the program also developed new educational materials and resources for residents, including water quality analysis interpretation tools, source water protection measures that private well owners can perform themselves, and information on PFAS-related topics.

The Private Wells Program also continues to work on the Well Completion Report data integrity project started in 2020. This project aims to create a complete electronic repository for all Well Completion Reports submitted to the Center for Drinking Water Quality since the reports were first required in 1972. Town and year files were audited for organizational accuracy, and the reports were scanned and indexed by location. The project also included creating and importing the indices into an ArcGIS-ready database. The Program is currently exploring potential data entry assistance opportunities for digitizing other well data on the reports, such as depth and stratigraphy.

The Private Wells Program also continued its work with both local and interstate community partners, assisting other agencies and educational institutions with data, resources, and other collaborative projects.

Licensed Aquatic Venues

In 2023, RIDOH licensed 402 aquatic venues. Indoor pools are licensed to operate year-round. Seasonal pools are licensed to operate from June 1 to September 30. Annually, RIDOH or the aquatic venue licensee collects and analyzes water quality samples for bacteria, free residual chlorine, combined chlorine, and potential of hydrogen (pH) levels. Compliance data are available in Appendix F.

Swimming Pools		**Therapy Pools (Hot Tubs)**	
Yearly	Seasonal	Yearly	Seasonal
139	**187**	**68**	**8**

Bottled Water

The United States Food and Drug Administration (FDA) regulates bottled water as a food product. Under the federal *Food, Drug, and Cosmetic Act* manufacturers are responsible for producing safe, unadulterated, and truthfully labeled products. The FDA has established regulations for bottled water including identity standards 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 be well water, municipal water from public water systems, mineral water, purified water, sparkling water, or spring water. The requirements for obtaining a bottling permit are submission and approval of analytical data for the water source and product, label approval, satisfactory inspection reports, and approval of the permit application.

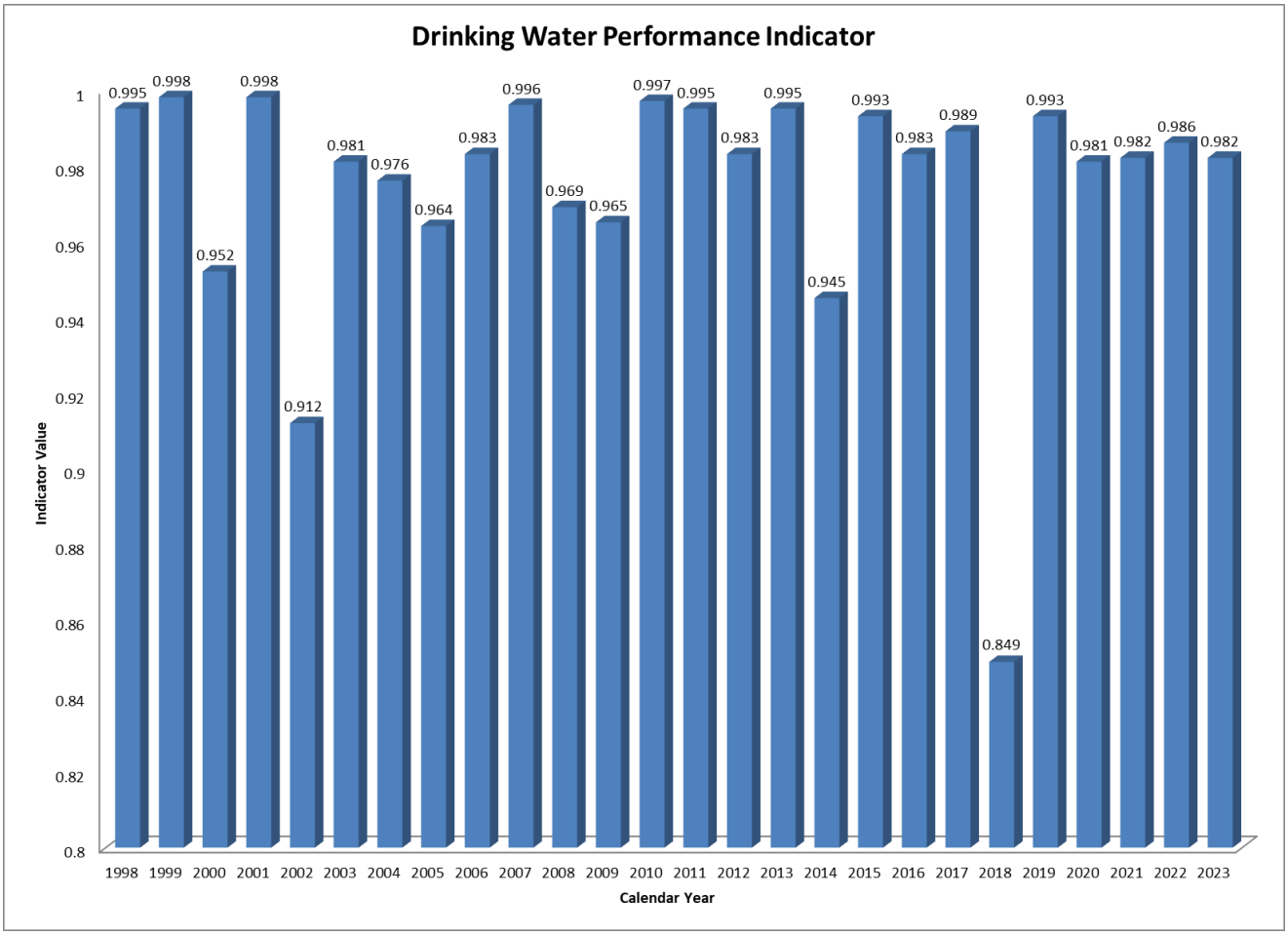
As of December 31, 2023, one licensed in-state water bottler and 161 licensed out-of-state water bottlers were selling bottled water in Rhode Island.

Impact and Performance

The performance of the state's public drinking water systems for 2023 is based on compliance with multiple water quality requirements specified in the Safe Drinking Water Act and is evaluated and compared to data from previous years. The outcome of the analysis is an overall performance indicator based on a composite of three metrics:

- Number of days each water system is in compliance with all maximum contaminant levels (MCLs) and treatment technique requirements;
- Number of customers each water system serves; and
- Number of days the water system operates.

A performance indicator value of 1.0 indicates that all public water systems (PWS) were in compliance with MCL and treatment technique requirements for the entire year (note that the performance indicator value can be significantly influenced by water systems with large populations). Much of the decrease in the 2018 indicator value was due to the impact of one maximum contaminant level violation at a water system with a very large population for a contaminant that is monitored approximately every 90 days. Without this violation, the performance indicator value was 0.948. The 2023 indicator value was 0.982.



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

Capacity Development Tools and Assistance

Rhode Island's public drinking water systems face a wide array of challenges in meeting the public health protection standards to ensure safe drinking water for community members, residents, and visitors.

RIDOH maintains a capacity development strategy aimed at improving the financial, managerial, and technical capacities of small public water systems that serve fewer than 10,000 people. The mission of the capacity development program is to identify methods for assisting water utilities in achieving sustainable operations over time.

To accomplish this mission, RIDOH maintains various contracts with industry professionals and organizations to provide wide-ranging services to the owners and operators of public water systems. These services and training initiatives are included in RIDOH's work plan and are funded through the Drinking Water State Revolving Loan Fund.

Services provided during the reporting period included:

Vendor	Service	Outcomes
Global Environmental Consulting (GEC)	Consumer confidence reports for systems serving 10,000 or fewer	90 reports completed
Northeast Water Solutions, Inc.	Facilities Improvement Plans for Community (C), nonprofit Non-Transient Non-Community (NTNC), and nonprofit Transient Non-Community (TNC) systems serving 10,000 or fewer	Seven systems received services
Northeast Water Solutions, Inc.	Engineering services for C, nonprofit NTNC, and nonprofit TNC systems serving 10,000 or fewer	Seven systems received services
New England Water Works Association[1]	Free operator training opportunities	Zero training contact hours delivered
RCAP Solutions[1]	Financial and managerial training for small PWS receiving DWSRF	No systems received services in 2023

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.

[1]During the 2023 program year there were no public water systems referred to RCAP Solutions managerial and financial training. There were also no trainings held under the New England Water Works Association operator training contract in 2023. Work will continue under these contracts in 2024.

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 671 licenses for treatment and distribution operators issued in the state, and some individuals hold multiple licenses and certifications. There are 89 Community and 78 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 these systems for distribution and/or treatment.

In 2023, the Center for Drinking Water Quality worked with the Rhode Island Office of the Postsecondary Commissioner's (RIOPC) Workforce Development Partnership in conjunction with the Rhode Island Department of Labor and Training to offer a 10-week preparation class for drinking water operators. This 10-week course aims to provide a foundation for professionals working in water treatment, water distribution, and water quality. Following the 10 weeks, a RIDOH proctor administers the treatment and distribution exams for the class. Curriculum topics include:

- Water Treatment Process
- Water Operator Math (treatment and distribution)
- Aeration, Coagulation, Flocculation
- Sedimentation Basins, Clarifiers
- Iron and Manganese, Filtration
- Security, Compliance, Ethics and Administrative
- Corrosion Control, Scaling, Lime Softening
- Water Quality: Disinfection, Fluoridation, Chlorination
- Water Storage and Water Services
- Water Quality Testing
- Water Main Install and Rehab
- Pumps: Centrifugal Pumps, Vertical Turbine, Submersible, Deep-well
- Hydrants: Proper Operation, Hydrant Design
- Meters: Meter Types and Operating Principles; Meter Sizing and Installation

In 2024 we will continue to work with industry assistance providers to offer free training initiatives and provide extensive opportunities for exam preparation funded through DWSRF set-asides.

Drinking Water Operators by License Type, 2023

Distribution License Type	License Count
DO (Distribution Operator) Class 1-Full	123
DO Class 1-Grandfathered	10
DO Class 1-Operator in Training	24
DO Class 2-Full	61
DO Class 2-Grandfathered	0
DO Class 2-Operator in Training	1
DO Class 3-Full	95
DO Class 3-Grandfathered	0
DO Class 3-Operator in Training	7
DO Class 4-Full	45
DO Class 4-Grandfathered	0
DO Class VSS-Full	21
DO Class VSS-Grandfathered	10
DO Class VSS-Operator in Training	1
DO Provisional	0
Total	398

Treatment License Type	License Count
TO (Treatment Operator) Class 1-Full	79
TO Class 1-Grandfathered	3
TO Class 1-Operator in Training	8
TO Class 2-Full	72
TO Class 2-Grandfathered	3
TO Class 2-Operator in Training	1
TO Class 3-Full	63
TO Class 3-Grandfathered	0
TO Class 3-Operator in Training	7
TO Class 4-Full	28
TO Class 4-Grandfathered	0
TO Class VSS-Full	5
TO Class VSS-Grandfathered	3
TO Class VSS-Operator in Training	1
TO Provisional	0
Total	273

Drinking Water State Revolving Loan Program

The *Safe Drinking Water Act* (SDWA) amendments of 1996 authorized the creation of a DWSRF program. This fund helps public water systems finance the costs of infrastructure needed to achieve or maintain compliance with the requirements and public health objectives of the SDWA.

In conjunction with the Rhode Island Infrastructure Bank, RIDOH's Center for Drinking Water Quality operates the DWSRF program with funds supplied by an annual EPA grant. RIDOH is responsible for the compilation of a priority list for current, ongoing, and proposed projects; engineering and environmental review of proposed projects; oversight of construction; assuring all grantees and sub-grantees follow DWSRF requirements; and review and approval of contractor payment requests. Completion of capacity development and maintenance of operator certification are key eligibility requirements for the DWSRF and are reviewed during the application process.

In 2023, RIDOH approved and the Rhode Island Infrastructure Bank funded eight new loans totaling $78,653,350.

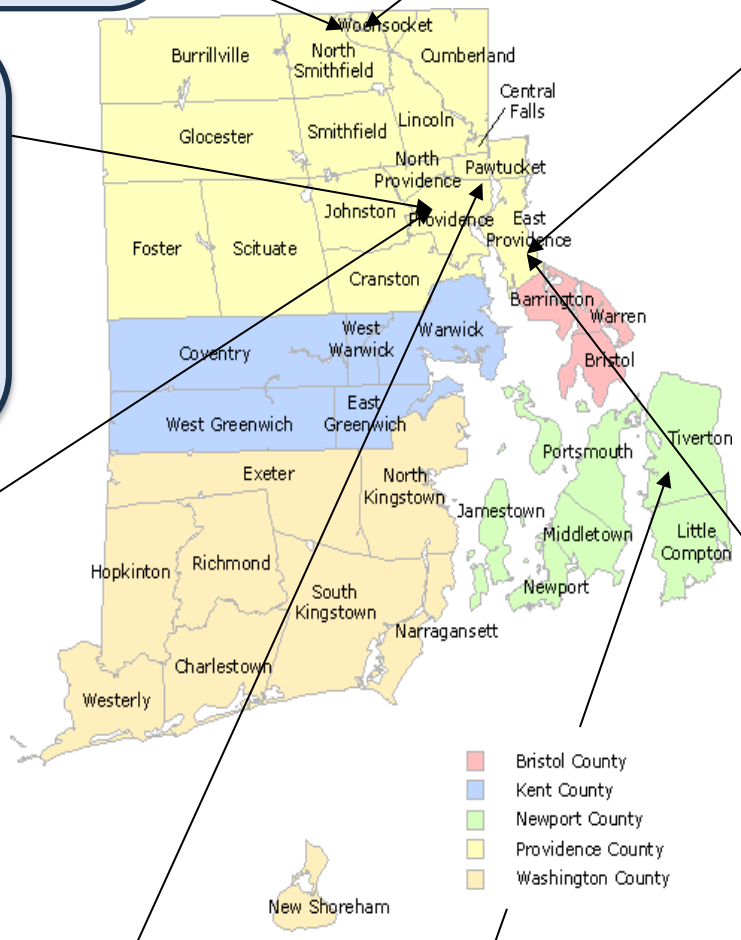
2023 Rhode Island Infrastructure Bank Loan Projects

Woonsocket
$5,000,000 for installation of new water meters in configuration with an advanced metering infrastructure system that will alert the system to water use and alarm conditions. The system will use radio frequencies in order to transfer data to a cloud-based system for billing and management. Any lead service lines identified will be simultaneously and completely replaced on both the public and private portions of the lead service lines.

Woonsocket
$525,000 for replacement of lead and galvanized steel service lines from the water main curb stop to the structure.

Providence Water
$26,300,000 for the replacement of lead service lines within the Providence Water distribution system service area. Replacement of both the public and private portions of the lead service line will be simultaneous and complete.

East Providence
$3,000,000 for purchase and installation of new water meters and interface units which will be radio frequency or cellular endpoints. In addition, the continuation of the City's cleaning and lining program will take place. During the project, any known or newly discovered lead service lines will be replaced in their entirety.



Providence Water
$5,500,000 for the rehabilitation of existing water mains by either main replacement or cleaning and lining of the water mains in the Providence Water distribution system service area. Any lead service lines identified will be simultaneously and completely replaced on both the public and private portions of the lead service lines.

East Providence

$23,000,000 for cleaning of approximately 60,000 ft of existing water main while replacing approximately four miles of aged water main with new ductile iron piping, as well as valves and hydrants within the project area. Any lead service lines that are identified and replaced during the project, will result in simultaneous and complete replacement of both the public and private portions of the lead service lines.

Pawtucket
$15,000,000 for the replacement and upgrade of the existing water meters and meter reading system in the Pawtucket Water Supply Board service area.

Stone Bridge Fire District
$228,350 for upgrades to existing cast iron pipe on Riverside Drive including the installation of new water service connections with curb stops and roadway resurfacing within Tiverton.

Engineering Review

The engineering approval process is designed to help ensure safety, sustainability, and resilience in drinking water infrastructure and sources around the state. Water systems must demonstrate that a project has met the regulatory requirements and engineering standards for public water facilities in their applications before projects may proceed. RIDOH inspections are conducted during and after construction.

There are four sections of the Engineering Review Program:

Drinking Water Source Approval

This process requires applicants to submit plans and supporting documentation showing that the location of a proposed new source is protected from potential contamination.

Drinking Water Facilities Plan Review and Approval

This process includes technical and engineering review of infrastructure projects under the PWSS program in accordance with the SDWA. Infrastructure review is required for wells, pumping, storage, and treatment, both new and rehabilitative.

Drinking Water State Revolving Loan Fund Plan Approval

Projects submitted for funding through the DWSRF program must comply with specific requirements of the funding program, including state and federal statutes and federal executive orders. RIDOH engineers and engineering contractors review the technical aspects of the project and ensure compliance with DWSRF requirements. In addition, the engineers inspect the projects during construction to ensure that all federal and state requirements are met.

Plan Review, Approval, and Inspections for Licensed Aquatic Venues

RIDOH ensures that licensed swimming pools and spas are constructed and operated in a safe and sanitary manner. Technical and engineering reviews are conducted for all new public pools and spas and for any alterations to existing pools and spas. Additionally, inspections of filtering systems, water quality, and other sanitary and safety concerns are performed by RIDOH and through a self-inspection and self-monitoring program.

Engineering Projects 2023	Received[1]	Approved[2]	Completed[3]
Non-DWSRF	30	12	6
DWSRF	9	8	4
In-Kind Replacement Forms	28	25	*n/a*

[1] *The number of engineering applications received during 2023.*

[2] *The number of engineering applications that received preliminary approval in 2023. Some of these may be applications received in 2022 that were carried over into 2023.*

[3] *The number of applications that received final approval in 2023, meaning that the construction of the project was completed. Some of these applications received preliminary approval in previous years but construction of the project was not completed until 2023.*

Inspections and Site Visits

All aspects of a public water system (water source, treatment facility, storage, pump stations, operations, and maintenance) require periodic inspection to help ensure that the water system continuously supplies safe drinking water to the public.

In 2023, RIDOH staff conducted 100 sanitary survey inspections. The inspection team coordinated with the Center for Drinking Water's compliance program and engineering team to ensure that all identified deficiencies were corrected or are under a corrective action plan. RIDOH staff also performed inspections at the request of water systems as part of the State's capacity development program.

In addition, RIDOH staff performed 12 conformance inspections of new construction and significant improvements to water system infrastructure, as well as 14 Level 2 Assessments in response to requirements of the *Revised Total Coliform Rule*.

2023 Sanitary Survey Inspections		
System Type	**Population Served**	**Inspections**
Community Water System	378,049	31
NTNC Water System	10,632	32
TNC Water System	5,374	37
TOTAL	**394,055**	**100**

Emergency Planning and Security

Water systems can face emergency situations caused by a variety of events, from impacts due to significant weather to supply chain interruptions. Emergency planning for water systems includes evolving fields like cybersecurity preparedness and climate change resiliency. Developing proactive policies can improve the conservation of resources, reduce repair expenses, minimize interruption of service, and enhance consumer confidence in drinking water utilities.

Program activities included:

- Dissemination of EPA, Cybersecurity Infrastructure Security Agency, and Water Information Sharing and Analysis Center planning tools to the water systems, including the *Vulnerability Self-Assessment Tool*, the *Water Health and Economic Analysis Tool*, and the Incident Action Checklists to assist drinking water and wastewater facilities of all sizes in enhancing their security and resiliency;
- Development of Emergency Drinking Water Source Plan;
- Participation in the Statewide Water Resources Board's Drought Steering Committee;
- Use of the email marketing service MailChimp to keep public water systems informed of imminent or ongoing emergencies;
- Development and implementation of an emergency generator program;
- Training for Center for Drinking Water Quality staff in EPA, Federal Emergency Management Agency (FEMA), and Occupational Safety and Health Administration (OSHA) practices for emergency preparedness and response;
- Development of emergency response planning templates, guidance, and certification forms;
- Requiring the completion and certification of Emergency Response Plans for all public water systems; and
- Maintenance and curation of information for the Emergency Information for Public Water Systems website.

In 2023 the Center for Drinking Water Quality continued providing public water systems with guidance in response to cybersecurity incidents and on navigating supply chain impacts. Information was promptly compiled and forwarded to our public water systems as it became available to our office.

In 2024-2025 the Center for Drinking Water Quality will continue working on proactive approaches to help public water systems prepare for cybersecurity challenges, climate resiliency, and emergencies. Guidance documents are also posted to the Emergency Information for Public Water Systems webpage (health.ri.gov/PWSprepare).

Drinking Water Webpages

RIDOH maintains a series of webpages for drinking water professionals and consumers in Rhode Island. The webpages listed below represent a hub of information that is available around the clock. Webpages are updated regularly with annual reports, new and revised guidance and forms, project progress tracking information, emergency preparedness news, and upcoming training opportunities for the water sector, including drinking water operator trainings for license renewal credit.

Public Drinking Water Consumers

About Your Water Quality health.ri.gov/water/about/yourwater/
Public Water Emergency Information for Consumers
health.ri.gov/water/for/consumersduringemergency/
Public Drinking Water Program health.ri.gov/programs/detail.php?pgm_id=158
PFAS Contamination of Water health.ri.gov/water/about/pfas/ | health.ri.gov/data/pfas/
Lead Contamination of Water health.ri.gov/water/about/lead/
Testing School and Child Care Drinking Water for Lead
health.ri.gov/data/schools/water/ | health.ri.gov/data/schools/water/2016/

Private Well Owners

Private Wells health.ri.gov/water/for/privatewellowners/
Certified Drinking Water Testing Labs health.ri.gov/find/labs/drinkingwater/

Public Water Systems

Drinking Water Rules and Compliance

Public Water System Compliance with the Revised Total Coliform Rule
health.ri.gov/water/about/revisedtotalcoliformrule/
Assessments to Find and Fix Causes of Microbial Contamination in a Public Water System
health.ri.gov/water/about/assessments/
Public Water System Compliance with Revised Lead and Copper Rule and Lead Poisoning Prevention Act health.ri.gov/water/about/revisedleadcopperrule/
Certified Drinking Water Testing Labs health.ri.gov/find/labs/drinkingwater/

Licensing

Public Water System Licensing health.ri.gov/PWSlicensing
Drinking Water Operator Licensing health.ri.gov/wateroperator

Program Pages

Emergency Information for Public Water Systems health.ri.gov/PWSprepare
Public Drinking Water Program health.ri.gov/programs/detail.php?pgm_id=158
Drinking Water State Revolving Loan Fund Program health.ri.gov/DWSRF
Engineering Review and Application Status of Drinking Water Projects
health.ri.gov/water/about/engineeringreview/
Licensed Swimming Pools Program health.ri.gov/pools

Water Quality Monitoring

Our nation's waters are monitored by local, state, and federal agencies, universities, dischargers, and volunteers. Water quality data are used to describe the physical aspects of the water, identify trends or emerging problems, evaluate pollution control efforts, and help respond to emergencies.

Maximum Contaminant Levels
Under the SDWA, the EPA sets maximum legal limits on the levels of certain contaminants in drinking water. The legal limits for these contaminants, known as Maximum Contaminant Levels (MCLs), are set at levels that protect the public's health and that are reasonably achievable with available technology. The EPA also sets treatment requirements, water-testing schedules, and sampling methods that all water systems are required to follow. RIDOH is responsible for ensuring that water systems in Rhode Island comply with EPA requirements.

Contaminant Rules
RIDOH regulates more than 90 contaminants in six contaminant groups: disinfectants, disinfection byproducts, inorganic chemicals, microorganisms, organic chemicals, and radionuclides. Drinking Water Standards and Advisory Tables summarizing all contaminants and their respective MCLs are maintained on the EPA's website (epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations).

A system's type, size, and water source determine which contaminants they must monitor. More than 60 of the regulated contaminants are in two of the contaminant groups: inorganic contaminants (IOCs) and organic contaminants (volatile organic contaminants, or VOCs, and synthetic organic contaminants, or SOCs).

Arsenic
Arsenic is a toxic element that naturally occurs in soil, rocks, and minerals. It is unevenly distributed and enters drinking water supplies from natural deposits in the earth and from agricultural and industrial practices.

***Groundwater Rule* (GWR)**
Most of the state's water systems use groundwater sources to supply customers. The GWR aims to reduce disease incidence associated with microorganisms in drinking water. The Rule establishes a risk-based approach and targets groundwater systems that are at risk of fecal contamination. These vulnerable groundwater systems work to take corrective action to reduce potential illness from exposure to microbial pathogens. This rule applies to all systems that use groundwater as a source of drinking water.

Disinfectants and Disinfection Byproducts
Water that comes from a lake, river, reservoir, or groundwater aquifer must be disinfected to kill harmful bacteria. However, water suppliers are challenged to balance the risks associated with harmful bacteria against the risks associated with disinfection byproducts. In 2023, 55 water systems were required to comply with the *Disinfection Byproducts Rule (*DBPR) either because they added a disinfectant to the water or purchased and distributed water that had been treated with a disinfectant by the seller. The most recent changes to the DBPR require that compliance is based on MCL results at individual sample locations instead of calculating one average value of all distribution system sample results for all water systems subject to the DBPR.

Lead and Copper Rule
The *Lead and Copper Rule* is intended to minimize lead and copper in water provided by Community and NTNC water systems. Most lead and copper contamination comes from pipes or solder that break down and mix with water. To treat water that contains lead or copper, the water must be collected from faucets that are inside homes and businesses. If the water is extremely corrosive or contains very fine lead particles, this triggers requirements for treatment, public education, and, if applicable, lead service

line replacement.

Radionuclides
Most drinking water sources have low levels of naturally occurring radioactive contaminants; however, man-made nuclear materials can also contaminate drinking water sources. All Community water systems are required to monitor for radionuclides.

Synthetic Organic Contaminants Waivers
On December 15, 2023, the Synthetic Organic Contaminants (SOCs) monitoring waiver program was discontinued. This program was discontinued for eligible Community and NTNC groundwater systems that served less than 3,300 people and did not use, store, or dispose SOCs within their wellhead protection areas.

The impact to water systems' future annual operating costs of discontinuing this program is expected to be minimal. Many water systems paid contract operators to complete the lengthy application for the SOC waivers. Processing these applications required considerable resources from the Center for Drinking Water Quality. Despite this effort and cost, most waiver applications for individual SOCs were denied. Waivers were frequently denied due to actual, potential, or unknown SOC use in the delineated wellhead protection area (WHPA) or because of incorrectly completed applications. It has proven difficult to accurately capture SOC use, storage, or disposal within the WHPA. Therefore, it was determined that discontinuing the program was the best path forward to balance the protection of public health and the effective use of state resources.

Surface Water Treatment Rule
The *Surface Water Treatment Rule* establishes filtration and disinfection treatment requirements for any public water system supplied by surface water sources or groundwater sources under the influence of surface water. Eight water systems in Rhode Island are covered by these rules that are designed to reduce or eliminate harmful bacteria. These water systems include filtration and disinfection as part of their treatment processes. An additional 25 water systems purchase filtered and treated water to sell to consumers. These systems are required to maintain a chlorine residual throughout their distribution system.

Total Coliform
There are a variety of bacteria, parasites, and viruses that can make people sick if they are present in drinking water. Instead of testing for each different kind of bacteria, water systems test for coliform bacteria. The detection of coliform bacteria indicates that disease-causing contaminants may be in the water.

Algal Toxin Rule
Active as of May 2019, the *Algal Toxin Rule* applies to all public water systems that have a surface water source. Algal toxins can be created when colonies of naturally occurring bacteria (also known as blue-green algae) in a lake or reservoir start producing compounds that affect the liver and brain. The standard monitoring period for the rule is May through October. Systems are required to check their surface water sources daily for signs of a harmful algal bloom (HAB), sample any HABs to identify and count bacteria, and test their raw and finished water for algal toxins when certain risk criteria is met. Public water systems must also submit plans that detail their treatment options and emergency response plans in the event of a HAB or toxin detection. As of 2023, this rule applies to eight public water systems.

Rhode Island is currently one of the few states that has successfully established public drinking water algal toxin regulations. The Algal Toxin Rule program at the Center for Drinking Water Quality also maintains close collaborative partnerships with the RIDOH Beaches program as well as the Rhode Island Department of Environmental Management Cyanobacteria program.

Water Quality Sampling

Water quality sampling and testing ensures the quality of the state's drinking water and that each water system is in compliance with monitoring requirements. RIDOH's State Health Laboratories continue to assist water systems with required water quality testing.

In 2023, the State Health Laboratories analyzed 5,010 water samples. The Center for Drinking Water Quality evaluated 32,182 analytical results from the State Health Laboratories and other state-certified labs.

In support of the Center for Drinking Water Quality, the State Health Laboratories:

- Tested drinking water for bacteria, organic and inorganic contaminants, minerals, and trace metals to determine safety and compliance with the *Safe Drinking Water Act*;
- Tested potability of water from private wells;
- Analyzed water samples in support of special pollution-monitoring programs;
- Maintained analytical instruments to detect and measure the concentration of a variety of pesticides and Volatile Organic Contaminant (VOC) and SOC pollutants in drinking water;
- Performed continuous quality improvement of testing processes;
- Operated the analytical laboratory certifications program; and
- Maintained a list of laboratories that are certified for the analysis of drinking water, non-potable water, and environmental lead.

Compliance

The complete 2023 Compliance Table summary, as required by the Safe Drinking Water Act amendments of 1996, can be found in Appendix E. In 2023, a total of 345 violations of the Safe Drinking Water Act and Public Drinking Water Regulations [216-RIRC-50-01-1] were reported in the state's public water systems. Of these 345 violations, 34 were water quality violations, 224 were monitoring and reporting violations, 23 were treatment technique violations, and 64 were notification violations. A summary of the violations is presented in Appendices B, C, and D. Please note that this report, including the data in Appendices B-E, only includes violations for which a notice of violation has been issued. It does not include violations that may have occurred in calendar year 2023 which are currently under investigation by RIDOH and for which a notice of violation has not yet been issued. Please also note that some of the violations identified in this report may be under appeal.

Quality Violations
Quality violations occur when the monitoring results for a particular contaminant exceed the maximum allowable standard within a specific time period. Public water systems must monitor for more than 90 contaminants including inorganic compounds, VOCs, SOCs, radionuclides, and pathogens.

In 2023, 12 public water systems exceeded a maximum allowable amount of a contaminant for a total of 34 violations. Of those 34 violations, 4 were bacteriological violations, 7 for inorganic contaminants, 14 were radiological, and 9 were for disinfection by-products (total trihalomethanes).

Monitoring and Reporting Violations
Monitoring and reporting violations occur when a water system fails to perform the required monitoring for a contaminant in a specified time period and/or fails to report the results or required actions on time. In 2023, a total of 288 monitoring and reporting violations occurred.

Lead and Copper Rule (LCR) Violations
Four public water systems exceeded the lead action level in 2023. Six public water systems exceeded the copper action level in 2023. Twenty-six public water systems received a total of 35 lead and copper rule violations in 2023. Of these violations, 12 were failure to properly collect, analyze, or report LCR monitoring samples; 5 were for failure to report water quality parameters on time; 14 were failure to report lead results to consumers within 30 days of receiving results from laboratory; and 4 were for failure to submit a corrosion control proposal by the due date.

Public Notification (PN) Violations
Public Notification violations occur when a water system does not notify customers of a violation within the required time period. In 2023, 30 public water systems failed to perform Public Notification as required.

Consumer Confidence Report Violations
Consumer Confidence Report (CCR) violations occur whenever a Community public water system does not provide a CCR to their customers and/or does not submit a CCR Certification Form to RIDOH by the required deadline. In 2023, 6 Community public water systems did not provide a CCR or a CCR Certification Form by the required deadline.

Treatment Technique Violations
Treatment technique violations occur when a public water system does not comply with the required treatment, does not correct a significant deficient/sanitary defect in the required timeframe, does not complete a Level 1 or Level 2 Assessment by the required deadline, or does not complete State-approved seasonal start-up procedures before providing water to customers. In 2023, 18 public water systems were issued a total of 23 treatment technique violations.

Appendix A: Compliance Table Definitions

Filtered systems: Surface water systems that have installed filtration treatment.

Inorganic contaminants: Non-carbon-based compounds, such as metals, nitrates, and asbestos, naturally occur in some water and can also get into water through farming, chemical manufacturing, and other human activities. The EPA has established MCLs for 15 inorganic contaminants.

Lead and Copper Rule (LCR): Established national limits on lead and copper in drinking water; states report violations of the Lead and Copper Rule in the following categories:

- Initial lead and copper tap monitoring and reporting: Water 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 monitoring and reporting: Water system did not meet follow-up or routine lead and copper tap-testing requirements or failed to report the results of those tests to the State.
- Water Quality Parameters (WQP): Water system did not collect or report water quality parameter samples properly.
- OCCT/SOWT RECOM/STUDY: Water system did not properly complete or submit an Optimal Corrosion Control Treatment (OCCT) or Source Water Treatment (SOWT) recommendation or study for a lead and/or copper exceedance.
- Treatment installation: Water system did not install optimal corrosion-control treatment system or source-water treatment system to reduce lead and copper levels in water at the tap.
- Public education/Lead Consumer Notice: Water system did not provide required public education about reducing or avoiding lead intake from water or notification of lead results to individuals served by taps used for Lead and Copper Rule tap monitoring or did not adequately report either to the State.

Maximum Contaminant Level (MCL): Highest amount of a contaminant that the EPA allows in drinking water while ensuring no short-term or long-term health risk; quantified as milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA-specified water-testing methods and schedules for testing frequency, which water systems are required to follow (for purposes of this report, a major monitoring violation occurs when at least 90% of the required samples were not taken or results were not reported during the specified period).

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides, that generally get into water through runoff from cropland or discharge from factories; the EPA has set MCLs for 54 organic contaminants.

Radionuclides: Radioactive particles occurring in water naturally or from human activity; the EPA has MCLs for five types of radionuclides: radium-226, radium-228, gross alpha, uranium, and beta particle/photon radioactivity; violations are reported in the following categories:

- Gross alpha: Alpha radiation higher than MCL of 15 picocuries/liter (pCi/L); includes radium-226 but excludes radon and uranium.
- Combined radium-226 and radium-228: Combined radiation from two radium isotopes higher than MCL of 5 pCi/L.
- Uranium: Combined uranium higher than MCL of 30 micrograms per liter (µg/L).
- Gross beta: Beta particle and photon radioactivity from man-made radionuclides higher than four millirems/year.

Reporting Interval: January 1, 2023 - December 31, 2023; includes violations in previous years which did not return to compliance until 2023 or later, or have not yet returned to compliance.

Safe Drinking Water Information System (SDWIS) Code: Specific numeric code assigned to each violation type or contaminant; two-digit code for violation type; four-digit code for contaminant.

State Compliance (SC): Compliance requirement regulated by the state but not regulated under the Safe Drinking Water Act. Usually failure to correct minor deficiencies or failure to submit license renewal application.

State Level (SL): MCL for a contaminant regulated by the state but not regulated under the Safe Drinking Water Act.

State Monitoring (SM) or State Reporting (SR): Monitoring or reporting requirement for a contaminant regulated by the state but not regulated under the Safe Drinking Water Act.

Surface Water Treatment Rule (SWTR): 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; violations are reported in four categories:

- Monitoring, routine/repeat (filtered systems): Water system does not perform required tests or does not report the results of those tests.
- Treatment techniques (filtered systems): Water system does not properly treat its water.
- Monitoring, routine/repeat (unfiltered systems): Water system does not perform required water tests or does not report the results of those tests.
- Failure to filter (unfiltered systems): Water system does not properly treat its water.

Total Coliform Rule (TCR): Effective until October 31, 2018; established regulations for microbiological contaminants in drinking water that can cause short-term health problems; violations were reported in two categories:

- Non-acute MCL violation: Water system detected total coliform in its water at a frequency or level that exceeds the standard.
- Routine/repeat monitoring or reporting: Water system did not perform the required monitoring and/or reporting.

Revised Total Coliform Rule (RTCR): Effective April 1, 2016; established regulations for microbiological contaminants in drinking water that can cause short-term health problems; acute MCL violation refers to confirmed E. Coli not total coliform; presence of total coliform results in assessment; established additional requirements for seasonal water systems.

Treatment Techniques: EPA-required water treatment process (instead of an MCL) for contaminants that laboratories cannot adequately measure; also, failure to correct a significant deficiency discovered during a sanitary survey, failure to correct a sanitary defect discovered during an assessment, failure to perform a Level 1 or Level 2 assessment, or failure to adequately perform seasonal start-up procedures.

Unfiltered Systems: Water systems that do not need to filter water before disinfecting it because the source is very clean.

Violation: Failure to meet any state or federal drinking water regulation.

Appendix B: Community Water Systems Violations

Quality Violations	
Central Beach Fire District (Nitrate)	1
Hillsdale Housing Cooperative, Inc. (Gross Alpha)	3
Narragansett Water Dept-North End (Trihalomethanes [TTHM])	4
Portsmouth Water & Fire District (TTHM)	3
Rockland Oaks (Beryllium, Combined Radium, Gross Alpha)	15
Shadow Woods At Deer Brook (Gross Alpha)	1
Veolia Water Wakefield Rhode Island Inc. (TTHM)	2
Total	29
Monitoring and Reporting Violations	
Abbey Lane Community Assn., Inc. (Cyanide)	1
Alpine Nursing Home (LCR)	1
Bethel Village Water Assn. (Asbestos, LCR)	6
Block Island Water Company (SOC)	1
Central Beach Fire District (Nitrate)	2
Chimera Inc. (SOC)	1
Dowling Village (DBPR, SWTR)	5
Exeter Job Corps Center (DBPR)	2
Hillsdale Housing Cooperative, Inc. (Gross Alpha, Potassium)	2
Ladd Center Water System (DBPR)	1
Lindhbrook Water Company (Combined Radium, LCR, SOC)	4
Maplehill Mobile Home Park (DBPR)	1
Mobile Village, Inc. (LCR)	1
Nasonville Water District (DBPR)	1
Naval Station, Newport (DBPR)	1
Ninigret Realty (RTCR)	1
Pine Acres ALR (LCR)	2
Providence-City Of (DBPR)	1
Prudence Island Water District (RTCR)	1
Quonochontaug East Beach Water Association (SOC)	1
Richmond Ridge Development (LCR)	2
Rockland Oaks (E. Coli, RTCR, SOC)	3
Shadow Woods At Deer Brook (Combined Uranium, Gross Alpha)	20
South Trail Commerce (SOC, VOC)	2
Stone Bridge Fire District (DBPR, LCR, SWTR)	12
Sunset Cove Properties LLC (LCR)	1
Village On Chopmist Hill, The (Combined Radium, Combined Uranium, Gross Alpha, IOC, LCR, Nitrate, Nitrite, SOC, State Reporting, VOC)	15
Warwick-Potowomut (DBPR)	2
Westerly Water Department (E. Coli, RTCR)	2
Woonsocket Water Division (DBPR)	5
Total	100
Public Notification Violations	
Bethel Village Water Assn. (PN)	3

Castle Rock Condominiums (CCR)	1
Central Beach Fire District (PN)	1
Chimera Inc. (PN)	1
Echo Lake Water District (CCR)	1
Exeter Job Corps Center (CCR)	1
Hopkinton, Town of (PN)	1
Kingston Center (PN)	1
Lindhbrook Water Company (PN)	1
Pine Acres ALR (PN)	1
Prudence Island Water District (PN)	1
Richmond Ridge Development (CCR)	1
Rockland Oaks (PN)	7
Rockville Mill Hopkinton, LLC (CCR)	1
Shady Harbor Fire District (CCR)	1
Stone Bridge Fire District (PN)	1
Total	24
Treatment Technique	
Hebert Health Center (LCR)	1
Hopkinton, Town of (RTCR)	1
Kingston Center (LCR)	1
Lindhbrook Water Company (LCR)	1
Rockland Oaks (RTCR)	1
Sunset Cove Properties LLC (State Compliance)	1
Total	6
PWS Licensing	
(none)	0
Total	0
All Violations	
Total	159

Appendix C: Non-Transient Non-Community Water Systems Violations

Quality Violations	
(none)	0
Total	0
Monitoring and Reporting Violations	
Acorn Academy, LLC (Cyanide, Fluoride)	2
Carousel Industries of North America LLC (LCR)	1
Charlestown Police Station (LCR)	1
Charlestown Senior Community Center (LCR)	1
Crandall House-Sr Citizens (PFAS)	1
Early Learning Centers of RI Saunderstown (LCR, RTCR, State Reporting)	3
Exeter-W. Greenwich Jr/Sr High School (LCR)	1
Foster Town Hall (LCR)	1
Glocester Town Hall-School Administration (LCR)	3
Meadowbrook Waldorf School (LCR)	1
Metcalf Elementary School (LCR)	1
Mildred E. Lineham School (LCR)	1
Nach Realty Trust (LCR, State Reporting)	2
North Scituate Elementary (GWR)	1
Quonset Business Park (DBPR)	2
RI State Police Headquarters -New (LCR)	1
Wood River Health Services (LCR)	1
Wrights Farm Corp. (DBPR, LCR)	2
Total	26
Public Notification Violations	
(none)	0
Total	0
Treatment Technique	
Fogarty Memorial School (LCR)	1
Lakeview Charlestown Early Learning Ctr. (RTCR)	1
Silveira Kindergarten & Nursery School (State Compliance)	1
Total	3
PWS Licensing	
(none)	0
Total	0
All Violations	
Total	29

Appendix D: Transient Non-Community Water Systems Violations

Quality Violations	
Camp Ker-Anna - Cabin (E. Coli)	1
Confreda Greenhouses & Farms, LLC (Nitrate)	1
Michaels Shell Station (E. Coli)	1
Partners Auto Auction RI (E. Coli)	1
Sophies Brew House Inc. (E. Coli)	1
Total	5
Monitoring and Reporting Violations	
334 Narrow Lane LLC (RTCR)	1
Allies Donuts, Inc. (Nitrate)	1
Bowdish Lake Camping Area, Brown 1 & 2 (E. Coli, RTCR)	3
Brick And Grills Restaurant (VOC)	1
Cadys Tavern (RTCR)	7
Champlins Marina & Resorts, Inc. (RTCR)	1
Chapmans Food and Drink (RTCR)	9
Charlestown Village, LLC Simple Pleasures (Nitrate)	1
Confreda Greenhouses & Farms, LLC (RTCR)	1
D. B. Mart #9 Gulf Gas Station (GWR)	1
DJ Realty Inc. (E. Coli, RTCR)	3
Dunkin Donuts Chepachet #338022 (RTCR)	1
Dunkin Donuts N. Smithfield 330325 (RTCR)	1
Famous Pizza (Nitrate, RTCR)	4
Frontier Camper Park Inc. (E. Coli, RTCR)	3
Gemelli Bistro – *Active Non-Operational* (RTCR)	4
General Stanton Inn (Nitrate, RTCR)	2
Ginny-B Family Campground (RTCR)	1
Glad Tidings Community Church (E. Coli)	1
Glocester Motor Inn (RTCR)	5
Grays Ice Cream, Inc. (E. Coli)	1
Harmony Corner Store (RTCR)	2
Highview Inn (E. Coli)	1
Hilltop Inn (RTCR)	1
Howards Country Chowder Shack (Nitrate, RTCR)	3
In The Middle of Nowhere Diner (RTCR)	1
Knight Farm LLC (RTCR)	2
Michaels Shell Station (E. Coli)	1
Monahan's Clam Shack (RTCR)	2
Mr. Zs By The Lake LLC (Nitrate)	2
New England Farms (Nitrate, VOC)	2
Newport Boys & Girls Club Camp - Well (Nitrate)	1
Oakleaf Campground (RTCR)	1

Ohm Ganesh Dba Country Farms (Nitrite)	1
P. A. Simmons Mercantile – *Active Non-Operational* (RTCR)	2
Pastore Leisure Center -Ladd School Camp (RTCR)	1
R.L. Flounders – *Active Non-Operational* (Nitrate, RTCR)	3
Rippys Liquor & Marketplace (RTCR)	1
Round Meadows Campground (E. Coli)	1
Rustic Tri-View Drive in Theatre-Snack B (RTCR)	1
Seacrest Inn, Inc. (Nitrate, RTCR)	2
Seasons Corner Market #21 (VOC)	1
Shoreline Plaza (E. Coli)	1
Sonquipaug Association, Inc. (Nitrate)	1
Sophies Brew House Inc. (RTCR)	1
Spring House Hotel -Island Entertainment (RTCR)	1
Spring Lake Recreational Facility (Nitrate)	1
Stonehouse Resort, Inc. (RTCR)	1
TPE RI WA1 Land LLC – *Active Non-Operational* (RTCR)	4
Trinity Episcopal Church (RTCR)	2
US Fish and Wildlife Service Visitor Ctr (E. Coli)	1
ZZ*IN*Wolf Rock Country Kitchen, Inc. (RTCR)	1
Total	98
Public Notification Violations	
Blue Shutters (PN)	1
Bowdish Lake Camping Area, Brown 1 & 2 (PN)	1
Chapmans Food and Drink (PN)	2
Confreda Greenhouses & Farms, LLC (PN)	2
Famous Pizza (PN)	18
Gemelli Bistro – *Active Non-Operational* (PN)	2
Glocester Motor Inn (PN)	1
Hickory Ridge Family Campground (PN)	2
Howards Country Chowder Shack (PN)	3
Knight Farm LLC (PN)	3
Michaels Shell Station (PN)	2
Ninigret Park-Little Nini Pond (PN)	1
Ninigret Park-Tennis Court (PN)	1
North Scituate Public Library (PN)	1
Total	40
Treatment Technique	
Bowdish Lake Camping Area, Brown 1 & 2 (RTCR)	1
Champlins Marina & Resorts, Inc. (GWR)	1
D. B. Mart #9 Gulf Gas Station (GWR)	1
Famous Pizza (RTCR, State Compliance)	5
Frontier Camper Park Inc. (RTCR)	1
Knight Farm LLC (RTCR)	1
Seaconnet Point Farm (RTCR)	1

Slatersville Medical Complex (State Compliance)	1
Sunset Cove Properties LLC (GWR)	1
Westwood YMCA (RTCR)	1
Total	14
PWS Licensing	
(none)	0
Total	0
All Violations	
Total	157

Appendix E: Compliance Table (January 1, 2023 – December 31, 2023)

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
Organic Contaminants								
2981	1,1,1-Trichloroethane	0.2	0	0			6	5
2977	1,1-Dichloroethylene	0.007	0	0			6	5
2985	1,1,2-Dichloroethylene	0.005	0	0			6	5
2378	1,2,4-Trichlorobenzene	0.07	0	0			6	5
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			7	5
2980	1,2-Dichloroethane	0.005	0	0			6	5
2983	1,2-Dichloropropane	0.005	0	0			6	5
2063	2,3,7,8-TCDD (Dioxin)	3x10-8	0	0			0	0
2110	2,4,5-TP	0.05	0	0			7	5
2105	2,4-D	0.07	0	0			7	5
2051	Alachlor (LASSO)	0.002	0	0			8	6
2050	Atrazine	0.003	0	0			8	6
2990	Benzene	0.005	0	0			6	5
2306	Benzo[a]pyrene	0.0002	0	0			8	6
2046	Carbofuran	0.04	0	0			7	5
2982	Carbon tetrachloride	0.005	0	0			6	5
2959	Chlordane	0.002	0	0			8	6
2380	cis-1,2-Dichloroethylene	0.07	0	0			6	5
2031	Dalapon	0.2	0	0			7	5
2035	Di(2-ethylhexyl)adipate	0.4	0	0			8	6
2039	Di(2-ethylhexyl)phthalate	0.006	0	0			8	6
2964	Dichloromethane	0.005	0	0			6	5
2041	Dinoseb	0.007	0	0			7	5

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
2032	Diquat	0.02	0	0			0	0
2033	Endothall	0.1	0	0			0	0
2005	Endrin	0.002	0	0			7	5
2992	Ethylbenzene	0.7	0	0			6	5
2946	Ethylene dibromide	0.00005	0	0			7	5
2034	Glyphosate	0.7	0	0			0	0
2065	Heptachlor	0.0004	0	0			8	6
2067	Heptachlor epoxide	0.0002	0	0			8	6
2274	Hexachlorobenzene	0.001	0	0			8	6
2042	Hexachlorocyclo-pentadiene	0.05	0	0			8	6
2010	Lindane	0.0002	0	0			8	6
2015	Methoxychlor	0.04	0	0			8	6
2989	Monochlorobenzene	0.1	0	0			6	5
2968	o-Dichlorobenzene	0.6	0	0			6	5
2969	para-Dichlorobenzene	0.075	0	0			6	5
2383	Total polychlorinated biphenyls (PCB's)	0.0005	0	0			0	0
2326	Pentachlorophenol	0.001	0	0			7	5
2987	Tetrachloroethylene	0.005	0	0			6	5
2984	Trichloroethylene	0.005	0	0			6	5
2996	Styrene	0.1	0	0			6	5
2991	Toluene	1	0	0			6	5
2979	trans-1,2-Dichloroethylene	0.1	0	0			6	5
2955	Xylenes (total)	10	0	0			6	5
2020	Toxaphene	0.003	0	0			8	6
2036	Oxamyl (Vydate)	0.2	0	0			7	5
2040	Picloram	0.5	0	0			7	5
2037	Simazine	0.004	0	0			8	6
2976	Vinyl chloride	0.002	0	0			6	5
	Subtotals		**0**	**0**	**0**	**0**	**15[2]**	**10[4]**
Stage 2 Disinfection Byproducts Rule								
1009	Chlorite	1	0	0			1	1
1011	Bromate	0.01	0	0			0	0
1006	Chloramines	4	0	0			0	0
1008	Chlorine Dioxide	0.8	0	0			0	0

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
999	Chlorine	4	0	0			7	7
1927	Total Alkalinity		0	0			1	1
2950	Total Trihalomethanes	0.08	9	3			7	5
2456	Total Haloacetic Acids	0.06	0	0			7	5
2920	Total Organic Carbon Removal Ratio				0	0	3	1
SR	State Reporting (MORs)						1	1
SR	State Reporting (Sample Data)						10	6
	Subtotals		**9**	**3**	**0**	**0**	**28[2]**	**12[4]**
Inorganic Contaminants								
1074	Antimony	0.006	0	0			1	1
1005	Arsenic	0.01	0	0			1	1
1094	Asbestos (>10 micrometers)	7 million fibers/L	0	0			1	1
1010	Barium	2	0	0			1	1
1075	Beryllium	0.004	5	1			1	1
1015	Cadmium	0.005	0	0			1	1
1020	Chromium	0.1	0	0			1	1
1024	Cyanide (as free cyanide)	0.2	0	0			3	3
1025	Fluoride	4	0	0			1	1
1035	Mercury	0.002	0	0			1	1
1040	Nitrate	10 (as N)	2	2			16	14
1041	Nitrite	1 (as N)	0	0			2	2
1045	Selenium	0.05	0	0			1	1
SM	Sodium						0	0
1085	Thallium	0.002	0	0			1	1
1038	Total nitrate and nitrite	10 (as N)	0	0			0	0
	Subtotals		**7**	**3**	**0**	**0**	**23[2]**	**18[4]**
Radionuclides								
4000	Gross alpha particle activity	15 pCi/l	7	3			13	3

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
4010	Combined Radium 226/228	5 pCi/l	7	1			3	2
4006	Combined uranium	30 µg/l	0	0			12	2
4101	Gross beta	4 mrem/yr.	0	0			0	0
1042	Potassium						1	1
		Subtotals	**14**	**3[4]**	**0**	**0**	**29**	**4[4]**
Revised Total Coliform Rule								
1A	Acute (*E. Coli*) MCL	Presence[3]	4	4				
2A	Level 1 Assessment missing or incomplete				4	4		
2B	Level 2 Assessment missing or incomplete				2	2		
2C	Corrective/Expedited Actions				2	2		
2D	Seasonal Startup Procedures				1	1		
3A/3B	Major or minor routine/additional routine						61	30
3C	Monitor extra coliform after turbidity exceedance (unfiltered SW)						0	0
3D	Lab/Analytical Method Error						0	0
4A	Reporting, Assessment Forms						0	0
4B	Reporting, Sample Results						12	12
4C	Reporting, Seasonal Startup Procedures Certification						1	1
4D	Notification to State w/in 24 hrs. of E. Coli result						0	0

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
4E	Notification to State w/in 24 hrs. of E. Coli MCL						0	0
4F	Notification to State w/in 24 hrs. of Assessment or Corrective Action Violation						0	0
5A	Sample Siting Plan Errors						0	0
5B	Recordkeeping						0	0
SC	State Compliance (failed to conduct LV1A in 10 days)				0	0		
SR	State Reporting (failed to electronically upload the data by the due date)						0	0
	Subtotal		**4**	**4**	**9**	**9_4**	**74**	**39_4**
Groundwater Rule								
5	State notification of treatment failure						0	0
28	Sanitary Survey Coop Failure				0	0		
19	Assessment monitoring of well						6	6
31	Failure to monitor treatment						2	2
34	Triggered monitoring of well						7	7
41	Failure maintain microbial treatment				1	1		
45	Failure address significant deficiency				2	2		
73	Failure notify other water system of E. Coli result(s)						0	0

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
SC	State-compliance (failure to correct deficiency)				5	2		
SR	State-reporting (Failure to report correction of deficiency)						0	0
	Subtotal		**0**	**0**	**8**	**5_4**	**15**	**14_4**
Surface Water Treatment Rule								
09	Recordkeeping						3	2
36	Monitoring & Reporting SWTR						0	0
38	Monitoring & Reporting IESWTR						1	1
40 - 45	Treatment techniques				0	0		
32	Monitoring, routine/repeat (Source, LT2)						0	0
SR	State-reporting (failure report CT parameters)						1	1
	Subtotal		**0**	**0**	**0**	**0**	**5_2**	**2_4**
Lead and Copper Rule								
51	Initial lead and copper tap M/R						0	0
52,56	Follow-up or routine lead and copper tap M/R						12	7
53	Water Quality Parameters						5	3
57	OCCT/SOWT RECOM/STUDY				4	4		
58, 63	Treatment Installation				0	0		
65, 66	Public education, Lead Consumer Notice				0	0	14	13

SDWIS Codes		MCL[1] (mg/l)	MCLs		Treatment Techniques		Monitoring/ Reporting	
			Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations	Number of violations	Number of PWSs with violations
SR	State Reporting (priority results)						0	0
	Subtotal		**0**	**0**	**4**	**4**	**31**	**23[4]**
Consumer Confidence Reports (CCR)								
71	CCR failure to report (major)						6	6
72	CCR inadequate content or reporting (minor)						0	0
Public Notice Rule								
75	Public Notification						56	24
76	Public Notification for state-only violation						2	2
	Subtotal		**0**	**0**	**0**	**0**	**64**	**30[4]**
State Violations (Miscellaneous)								
SC	State-compliance (Operator License)				2	2		
SR	State-reporting (failed to notify pressure <20psi)						3	3
SM	State-monitoring (PFAS)						1	1
	Subtotal		**0**	**0**	**2**	**2**	**4**	**4**
Totals			**34**	**12[4]**	**23**	**18[4]**	**288**	**111[4]**

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

2 *Monitoring violations for Volatile Organic Chemicals, Synthetic Organic Chemicals, Inorganic Chemicals, Disinfection Byproducts, and Long Term 2 Enhanced Surface Water Treatment Rule (LT2) are issued as a single violation for the suite of contaminants, not as violations for each of the regulated contaminants.*

3 *The coliform MCL is based on presence or absence of total coliforms in a sample, rather than coliform density. For total coliforms: if a public water system collects at least 40 samples per month, the MCL is exceeded when more than 5% of samples collected during the month are total coliform positive; if a public water system collects fewer than 40 samples per month, the MCL is exceeded if more than one sample is total coliform positive. For E. coli, the MCL is exceeded when a single E. coli positive sample is confirmed by a consecutive total coliform positive or E. coli positive sample.*

4 *The subtotal and total number of public water systems with violations is not necessarily the sum of the number of public water systems within each rule category. This is because each public water system might have more than one violation within each rule category.*

Appendix F: Compliance Data for Licensed Aquatic Venues

Figure 1: 2023 Total, Water Quality Samples (Bacteria, Free Residual Chlorine, Combined Chlorine, and pH level), Swimming Pools and Therapy Pools, collected by Licensees

Swimming Pools		Therapy Pools	
Indoor	Outdoor	Indoor	Outdoor
182	288	22	29

Figure 2: 2023 Swimming and Therapy Pools Violations, By Violation Type

Water Quality Violations				Other Violations			
Swimming Pools		Therapy Pools		Swimming Pools		Therapy Pools	
Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
3	9	6	0	14	6	1	0

Staff Acknowledgments

This list reflects staff names and titles/roles as of December 31t, 2023.

Christopher Agnew Assistant Health Program Administrator
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Emma Shipley NEIWPCC, Environmental Analyst, Lead in Schools
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Alex Worrell Environmental Engineer I (BIL)
David Zanfagna Environmental Scientist II (PWS Inspections & Assessments)
VACANT Environmental Engineer I (BIL)
VACANT Environmental Engineer II (BIL)
VACANT Environmental Engineer II
VACANT Environmental Engineer III (Aquatic Venues/PWS)
VACANT Environmental Engineer III (BIL)
VACANT Environmental Engineer III (Pools)