



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



Robert R. Scott, Commissioner

October 2, 2023

*Via email*

Ms. Andrea Traviglia  
Drinking Water Quality and Protection Unit  
USEPA - New England  
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**Re: New Hampshire Capacity Development SFY 2023 Annual Report and SFY 2021-2023 Triennial Report to the Governor**

Dear Ms. Traviglia:

We are submitting herewith New Hampshire's Capacity Development Annual Report for state fiscal year (SFY) 2023 and Triennial Report to the Governor for SFY 2021-2023. This report is posted annually for public review at <https://www.des.nh.gov/water/drinking-water/public-water-systems/capacity-development>.

The report is organized in accordance with the United States Environmental Protection Agency's requirements to include state activities and control points for capacity assurance for new and existing non-transient public water systems. Special initiatives pursued during this fiscal year included:

- Reducing repeat violations for small community water systems serving less than 100 people, including Maximum Contaminant Levels (MCLs) and monitoring/reporting;
- Continued managerial, technical, and financial assistance to small, privately-owned community water systems through our Tank Inspection Grant, Strategic Planning Grant, Asset Management Grant, the Drinking Water State Revolving Loan Fund (DWSRF) and the state Drinking Water and Groundwater Trust Fund (DWGTF); and
- One-on-one assistance to small systems and medium-sized systems to develop water system business plans/asset management programs for those receiving DWSRF and DWGTF loan or grant awards.

Please contact me at (603) 271-2472 or [kaitlin.e.curtis@des.nh.gov](mailto:kaitlin.e.curtis@des.nh.gov) with any questions or comments about our technical assistance activities or this report.

Very truly yours,

Kaitlin Curtis  
Water Systems Sustainability Manager  
Drinking Water and Groundwater Bureau

cc. B. Kernan, R. Pelletier, J. McKenna, S. Beauchesne – New Hampshire Department of Environmental Services

**STATE OF NEW HAMPSHIRE  
CAPACITY DEVELOPMENT REPORT  
SFY 2023 ANNUAL REPORT TO USEPA  
SFY 2021-2023 TRIENNIAL REPORT TO THE GOVERNOR**

September 2023



New Hampshire Department of Environmental Services  
Water Division  
Drinking Water and Groundwater Bureau

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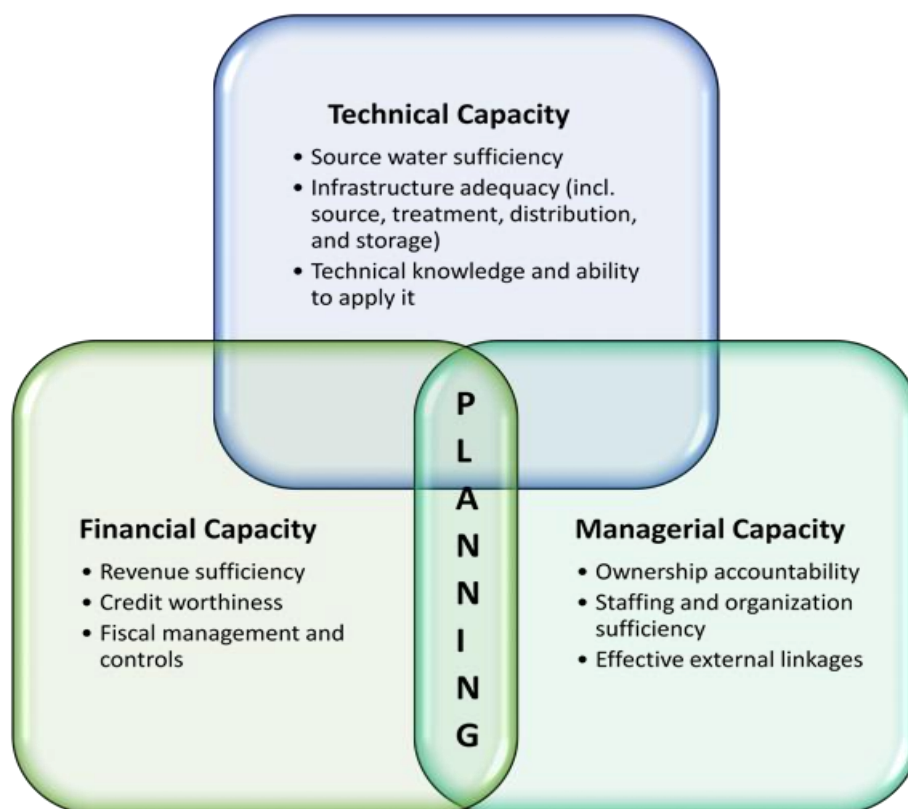
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## I. INTRODUCTION

### 1. BACKGROUND

Under the 1996 Amendments to the Safe Drinking Water Act (SDWA), Section 1420(c), each state must develop, implement, measure and report on their “capacity assurance” efforts to ensure that all new and existing public water systems (PWS) have adequate technical, managerial, and financial means to provide clean, safe and reliable drinking water to their customers. States failing to comply with these requirements are subject to withholding up to 20 percent of their Drinking Water State Revolving Loan Fund (DWSRF) allotment. Water system capacity is defined in three categories, as shown in the image below.



**Technical** - The physical and operational ability of a water system to meet SDWA requirements, including the adequacy of its source water, physical infrastructure, technical knowledge and capability of operating personnel.

**Managerial** - The ability of a water system to conduct its affairs in such a manner to achieve and maintain compliance with SDWA requirements, including the system’s institutional and administrative capabilities.

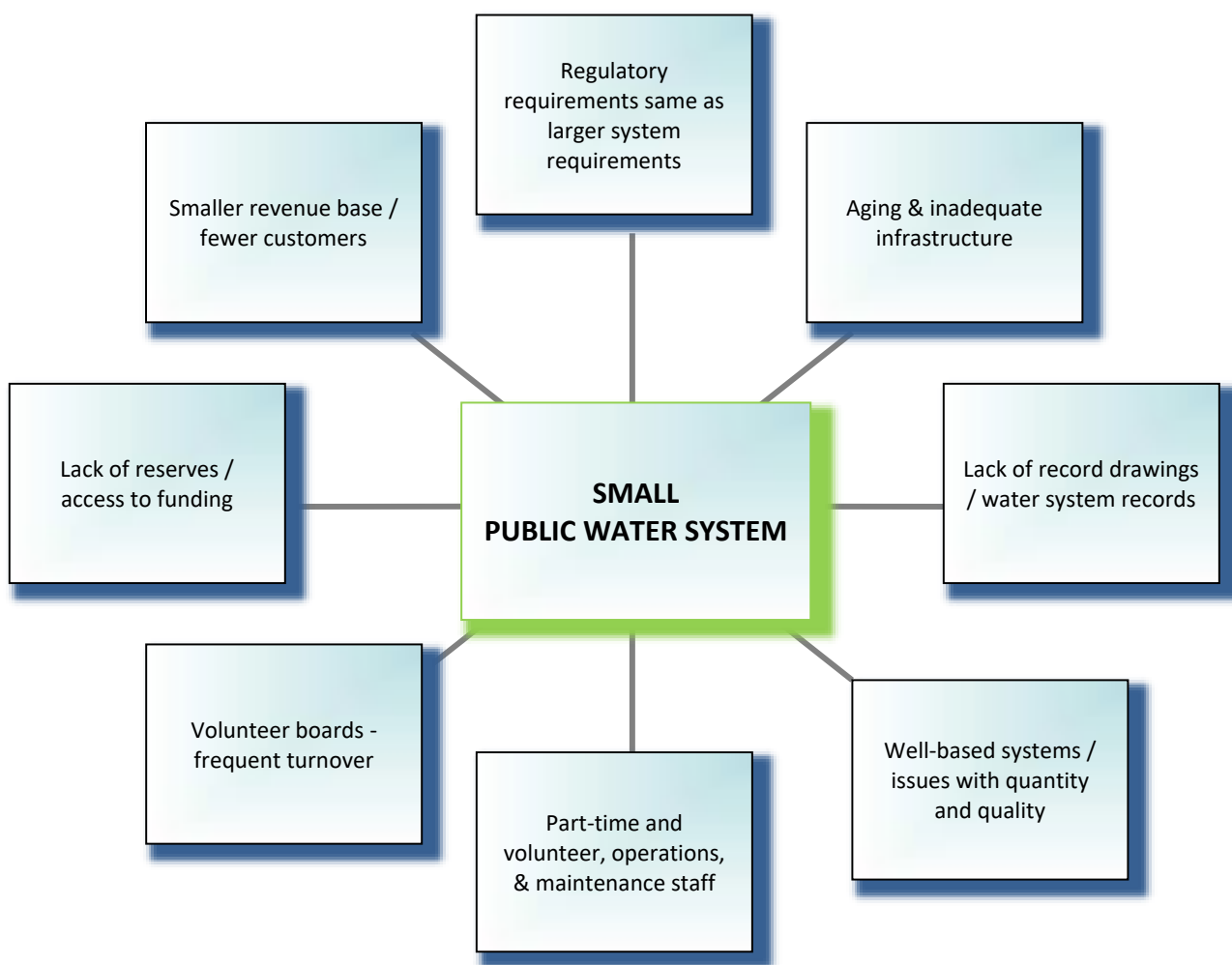
**Financial** - The water system’s ability to acquire and manage sufficient financial resources to achieve and maintain compliance with SDWA.

This report is structured in accordance with the reporting criteria required by the United States Environmental Protection Agency (USEPA). Section II describes water system compliance issues or

capacity development “needs.” Section III describes activities to ensure adequate capacity of **new** PWSs. Section IV summarizes activities to improve the capacity development of **existing** systems.

The goal of capacity assurance is to improve the long-term sustainability and rate of compliance of **community PWSs (CWS) and non-transient non-community (NTNC) PWSs**. New Hampshire’s program is administered through the New Hampshire Department of Environmental Services (NHDES) Drinking Water & Groundwater Bureau (DWGB). While DWGB provides assistance to all PWSs, DWGB focuses our capacity development efforts on the small water systems (<10,000 service population). These small water systems exhibit a multitude of hardships to manage and maintain water system compliance (Figure 1), have a limited rate base, and incur the highest number of violations both for health-based parameters and for monitoring and reporting requirements.

**Figure 1 - Small Public Water System Challenges**



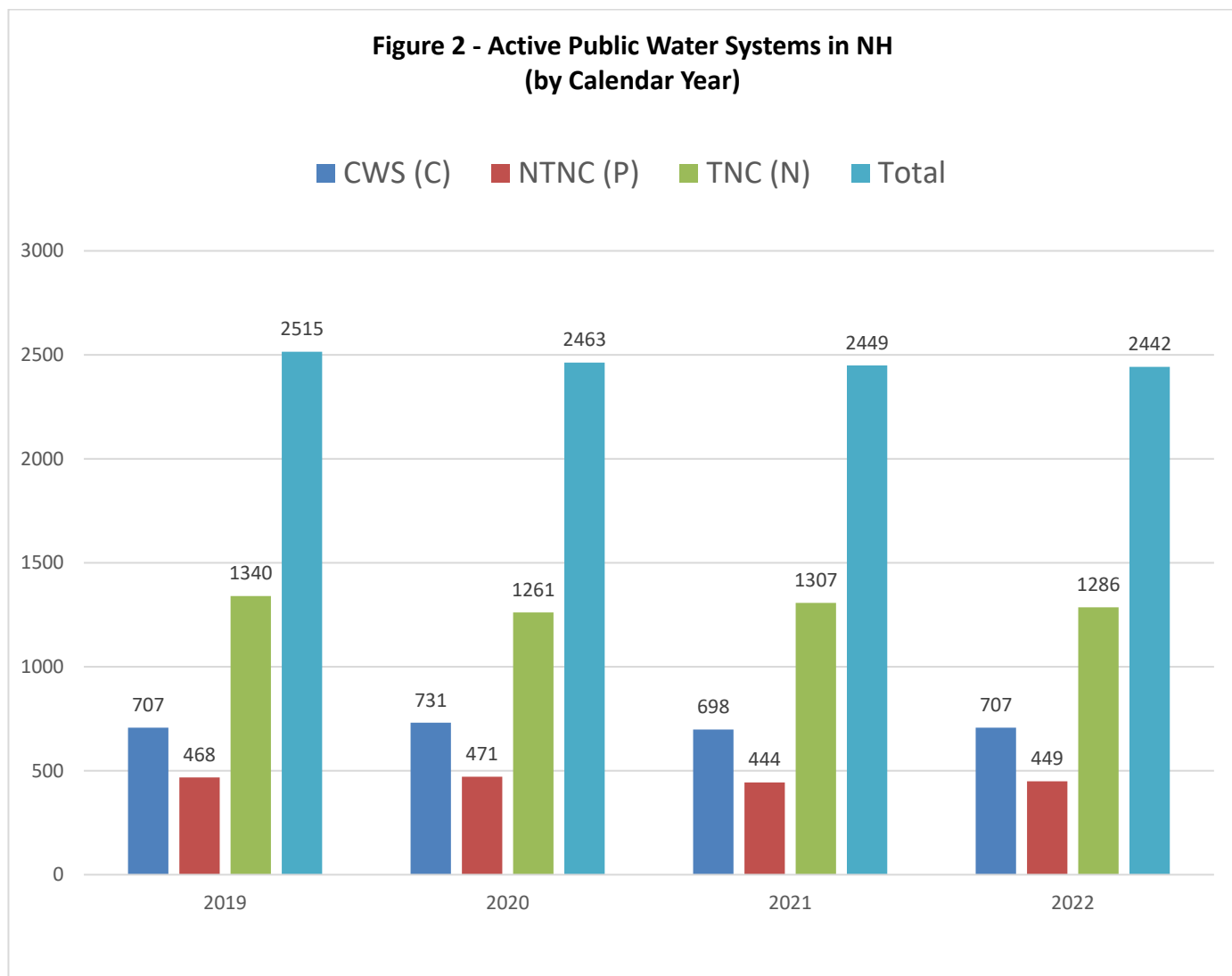
**2. PROFILE OF NEW HAMPSHIRE PUBLIC WATER SYSTEMS**

There are three types of PWSs: CWS systems ranging from small apartment buildings to manufactured home parks to small and large municipalities; NTNC systems such as schools, childcare facilities and small businesses; and transient non-community (TNC) systems such as restaurants, convenience stores, ski resorts and campgrounds. For this report, when the acronym “PWS” is used, it means systems of all types

unless specified in greater detail. In this report, CWS are also referred to as “C” systems, NTNC as “P” systems and TNC as “N” systems.

As of December 31, 2022, the PWS inventory consisted of 2,442 active systems, of which 707 are CWS systems serving a population of 891,277. There are 449 NTNC systems and 1,286 TNC systems. Most of New Hampshire’s CWS systems are very small (only 117 active PWSs have populations of over 1,000), and most serving a population of less than 500. There are 579 CWS systems that serve a population of less than or equal to 500. This data comes from the 2022 Annual Compliance Report dated July 1, 2023.

The following chart reflects the number of public water system from the last three years:



**Table 1 – Community Systems by Population Ranges\*\***

Population Categories	Population Ranges	# of Community Systems	Total Population Served
Large Systems	>50,000	2	211,432
Medium Systems	10,001 – 50,000	16	340,361
	3,301 – 10,000	25	145,234
Small Systems	1,001 – 3,300	51	98,330
	501 – 1,000	34	24,336
	251 - 500	64	21,828
	101 – 250	191	30,844
	25 – 100	319	18,807
	<25	5	105

**Table 2 – Number of Community Systems by Source Types\*\***

Community Systems	# Systems	Population Served
Groundwater Only	640	336,056
Surface Water Only	22	302,520
Combined Sources (Surface and Groundwater)	17	205,672
Purchased Surface Water (only)	21	68,117
Purchased with Groundwater Sources	4	25,289

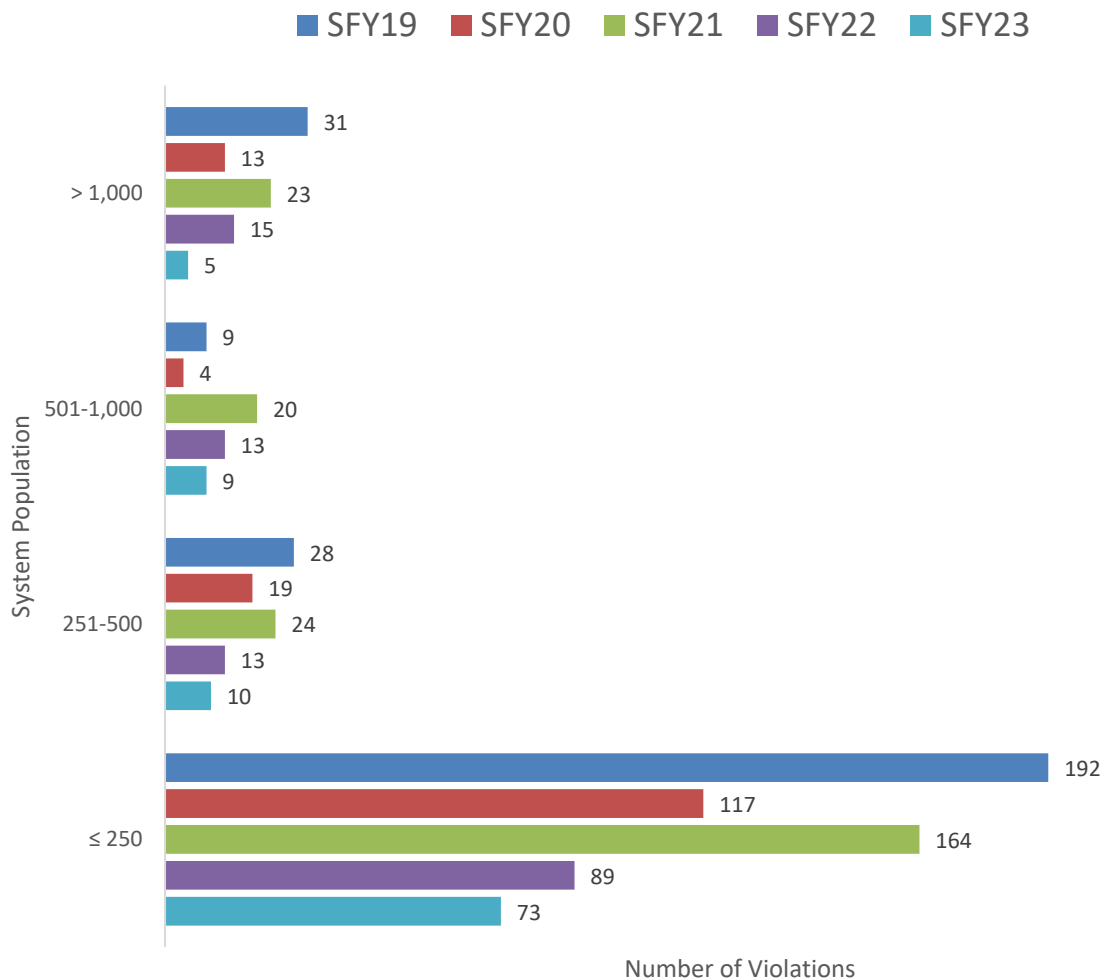
\*\*Information came from the 2022 Annual Compliance Report dated July 1, 2023

## II. STATEWIDE CAPACITY NEEDS IDENTIFIED THIS PERIOD

### 1. VIOLATIONS FOR MONITORING AND REPORTING

Most monitoring and reporting (M/R) violations are caused by failure to sample or report sample results for bacteria and disinfection byproducts on time. Figure 3 on the following page depicts total M/R violations issued for bacteria, disinfection byproducts, other chemicals and lead and copper. Over the years, the number of M/R violations issued to systems serving up to 250 people has been historically higher than those issued for all other system sizes combined. NHDES recognizes the need for providing more education and outreach to the very small systems. Technical assistance (TA) has always been a priority for these very small systems as they tend to lack institutional knowledge and consistency within the organizational structure.

**Figure 3 - Monitoring and Reporting (M/R) Violations for Non-Transient Systems by System Population**



## 2. VIOLATIONS FOR WATER QUALITY

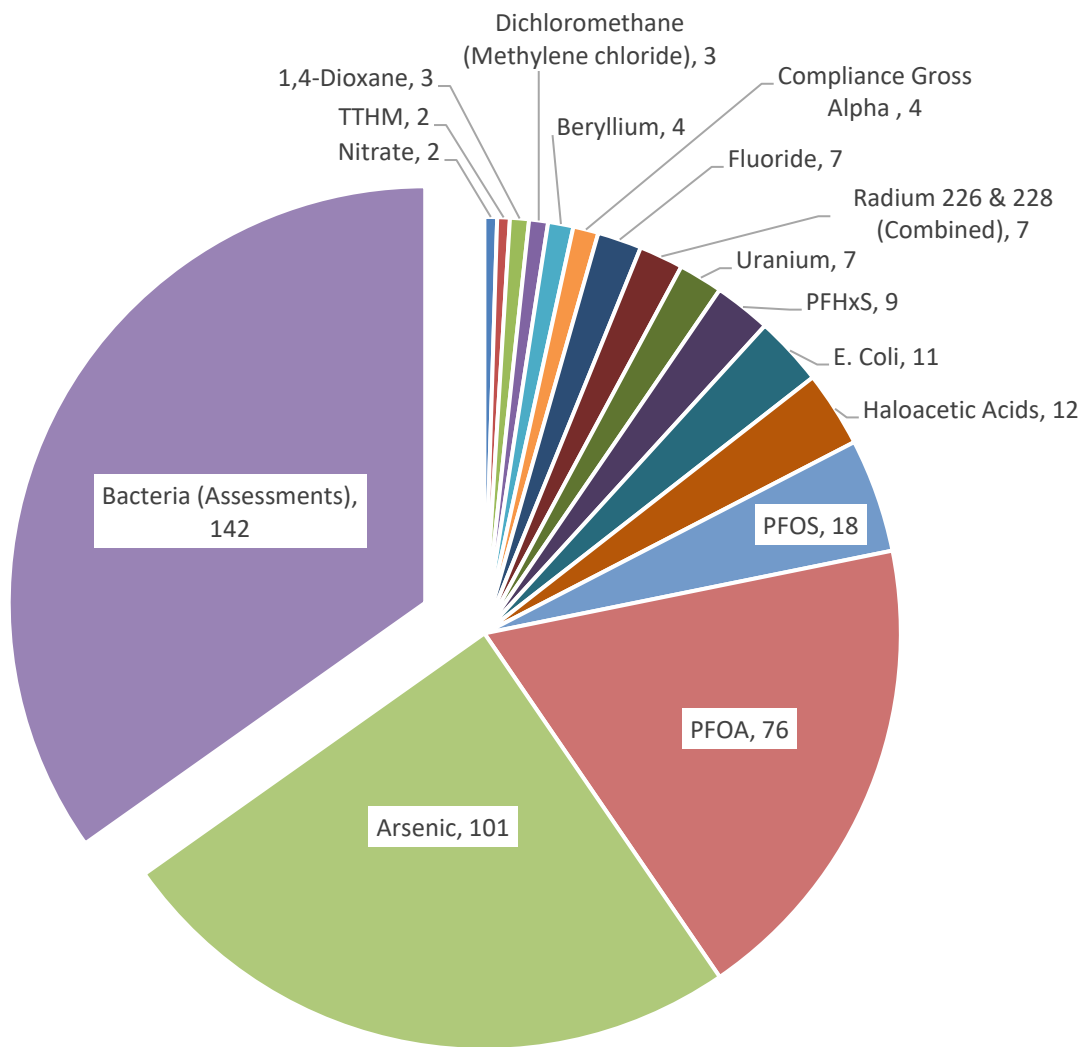
Violations are issued for exceedances of health-based, maximum contaminant levels (MCLs) for *E. coli* bacteria, chemical parameters, disinfection byproducts and radionuclides. We also include Level 1 and Level 2 Assessments for total coliform bacteria in this evaluation since the Revised Total Coliform Rule (RTCR) replaced MCLs for Assessments. A breakdown of violations by contaminant for the past state fiscal year (July 1, 2022-June 30, 2023) is summarized in Figure 4 on the following page. Figure 4 shows that bacteria, arsenic and poly- and perfluoroalkyl substances (PFAS) contaminants continue to be a priority for outreach and assistance, especially for the very small systems. Due to the prevalent occurrence of arsenic in groundwater in New Hampshire, New Hampshire lowered the MCL for arsenic to 0.005 mg/L (half of the federal MCL) in 2021. Similarly, New Hampshire set state MCLs for PFAS in 2019, and so relative to the majority of other states lacking state MCLs for PFAS and/or industries that historically emitted PFAS to the air which deposited the contaminants on the ground causing regional contamination of groundwater and surface water, New Hampshire likely has more violations. DWGB assists PWSs with complying with MCLs for arsenic and PFAS through the provision of technical and financial assistance. New Hampshire created a PFAS remediation funding program due to the prevalence of PFAS in New Hampshire. Eligible PWS capital improvement projects that address compliance with the MCLs are provided project priority points for



financing through DWSRF funding.

**Figure 4 - Chemical MCL Violations and Bacteria-Based Assessments for Non-Transient Systems**

(SFY23, Total MCL Exceedances including Bacteria L1 and L2 Assessments = 142)



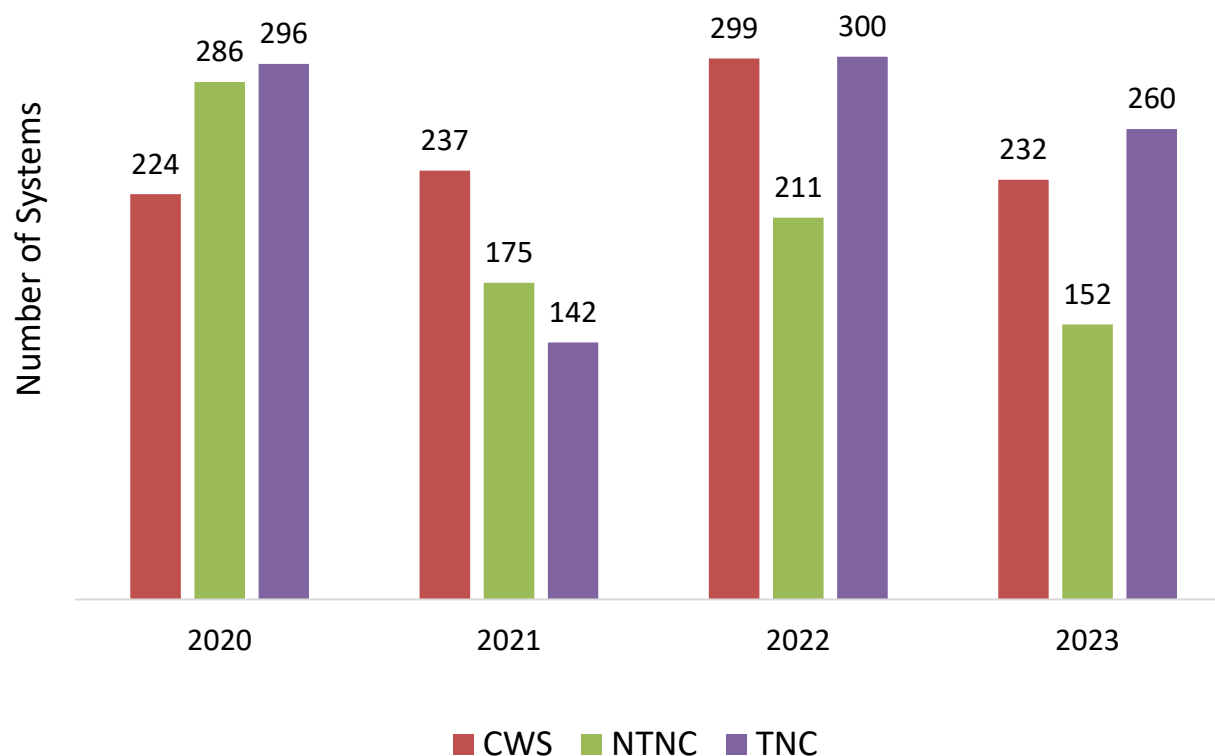
### 3. DEFICIENCIES NOTED FROM ONSITE INSPECTIONS AND ASSESSMENTS

#### Sanitary Survey Inspection Deficiencies

DWGB staff conducts sanitary surveys or water system inspections every three years for CWS and NTNC systems and every five years for TNC systems. The water systems are inspected for the eight major elements required by USEPA and state drinking water program regulations: Source, Treatment, Pumping, Storage, Distribution, Monitoring and Reporting, Operator Certification and System Management. Surveys are one of the best ways of ensuring proper protection of drinking water supplies and the proper operation of PWSs. Periodic visits to the water systems allow the DWGB staff to update its data and gather other information on the water system that is required under federal and state regulations. All new systems are surveyed as they come online. In state fiscal year 2023 (SFY23), DWGB staff conducted and reviewed 1,128 total site visits. Among the reasons for those site visits (irrespective of water system size and type) are: 644 sanitary surveys, 114 site investigations, 33 TA visits, 13 boil order responses, 21 visits related to capacity development, 161

Level 1 Assessments by PWS owners or contractors and 142 Level 2 Assessments by certified operators and DWGB staff.

**Figure 5 - Sanitary Surveys Completed**  
(By State Fiscal Year)



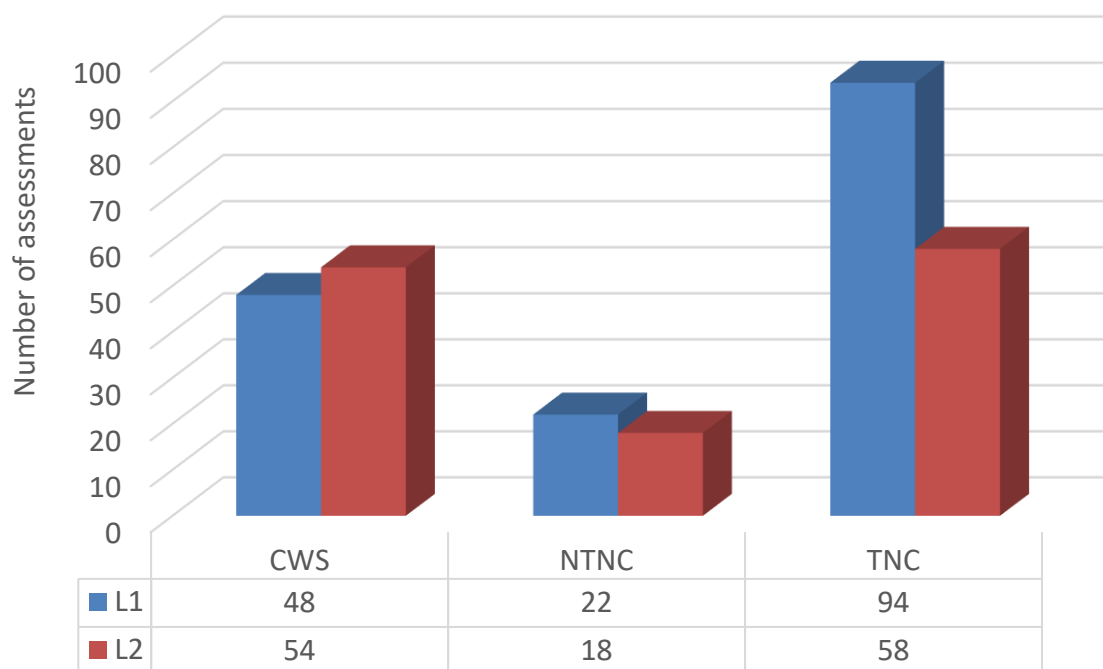
Sanitary survey enforcement in New Hampshire starts with issuance of a state-only Notice of Violation (NOV) when systems fail to correct a sanitary survey deficiency within the required timeframe, which is generally set at 30 days. If the system still fails to correct the deficiency after receipt of the NOV, the next level of enforcement is a Letter of Deficiency (LOD). Depending on the type of deficiency and the length of time to correct, the water system may also incur a federal violation and requirement for Public Notice.

#### **Bacteria Assessments and Sanitary Defects**

Approximately 50% of all assessments are triggered each year by TNC systems (Figure 6). Typically, about 90% of assessments are triggered due to the actual detection of total coliform, while the remaining 10% are due to either late sampling or failure to collect repeat samples. Letters are sent following the first total coliform event to better address the sampling requirements and possibly avoid repeated assessments.

Since the start of the RTCR in 2016, NHDES has provided TA to address the causes of coliform in systems experiencing repeated assessments, by conducting the fourth Level 2 assessment. Such outreach will remain a feature of the New Hampshire Capacity Development program.

**Figure 6 - Level 1 and 2 Assessments Per System Type**  
(for SFY23)



#### 4. IDENTIFICATION AND PRIORITIZATION OF SYSTEMS IN NEED OF ASSISTANCE

For existing systems, TA is provided by DWGB staff through the DWSRF Set-Asides. These services are available to all community and non-transient non-community water systems but are targeted especially to those with significant compliance issues or that are at risk of non-compliance. These systems are identified through regular interactions including sanitary surveys, referrals from contract operators, customer complaints, grant and loan application lists, boil order assessments, repeated assessments, emergency bulk water deliveries, enforcement lists and database queries for accumulated violations. DWGB staff also review PWSs for capacity assurance deficiencies and provides outreach on funding opportunities to assist these small systems with compliance. Two examples of the many small systems that have benefited from this technical assistance are Lee Oaks and Pillsbury Lake (composed of two systems – Franklin Pierce and Peninsula):

- Lee Oak Cooperative (PWS 0153040) in Barrington received seven significant deficiencies in the last five years and was awarded \$545,000 in grant funds and \$1,000,000 in loan funds as part of the SRF and American Rescue Plan Act (ARPA) funding programs.
- Pillsbury Lake/Peninsula (PWS 2462040 and 2462050) in Webster received 23 significant deficiencies in the last five years and was awarded a \$157,500 grant from the state Drinking Water and Groundwater Trust Fund and \$525,000 in SRF loans.

A rolling capacity development “priority list” is maintained wherein each system is assigned a lead TA contact from the DWGB, to identify root causes and solutions with the system representatives and consultants.

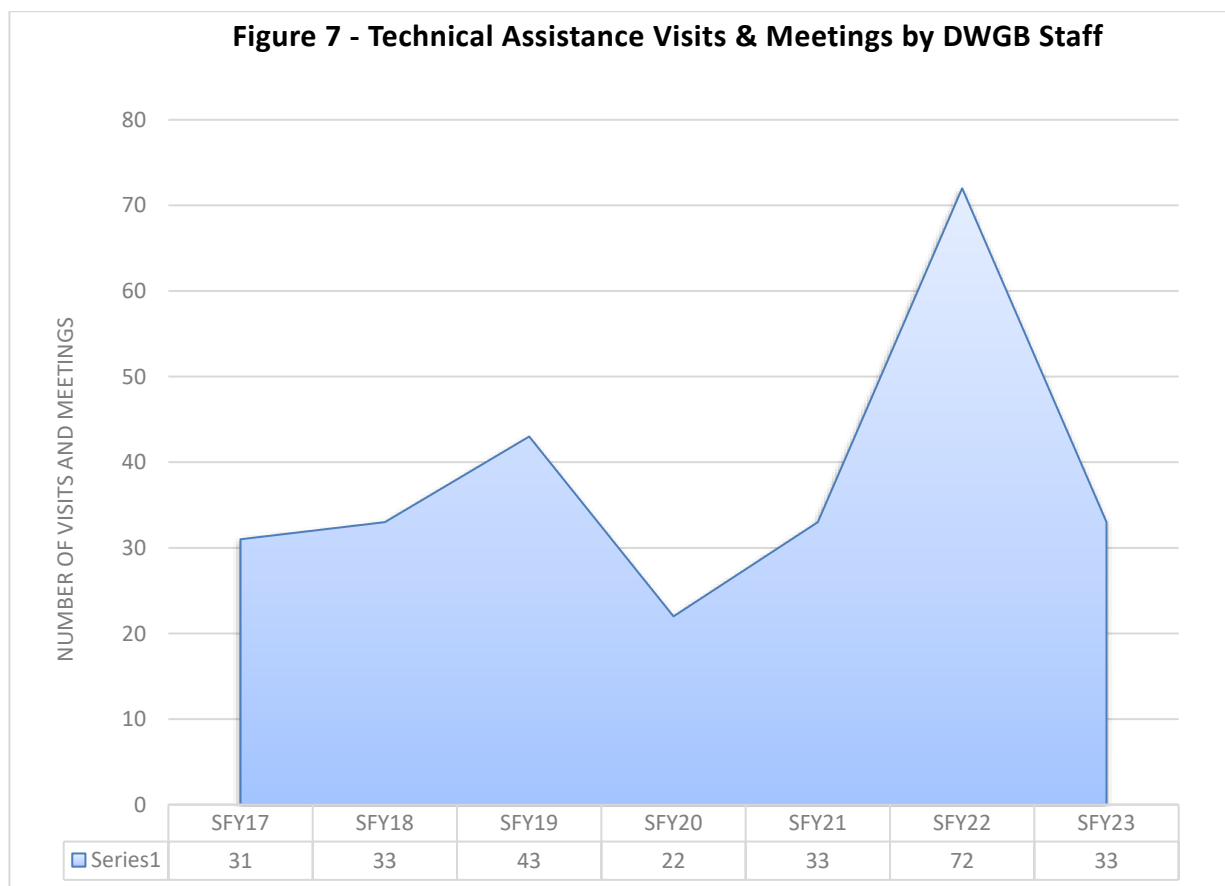
TA and parallel enforcement interactions with systems on the priority list (and others) are documented in water system files. Capacity development efforts often require several months to years to address the core causes of non-compliance. Assistance efforts typically include site visits and meetings, email and

phone interactions, coordination with national and state TA partners and funding assistance via grants, DWSRF and/or other state funding assistance programs for water systems. This assistance lowers the number of violations, which allows higher enforcement to focus on the least responsive violators.

TA site visits and meetings attended by DWGB staff for SFY17 to SFY23 are shown in Figure 7. These site visits are *in addition* to standard sanitary surveys, permitting inspections, DWSRF inspections and other special investigations performed by DWGB technical staff. TA visits and electronic communications with new transient system owners included delivery and review of a customized e-binder to orient them to their responsibilities as a PWS. The e-binder includes documents covering sampling schedule and forms, instructions for using the PWS online portal “OneStop” and guidance on proper sampling procedures.

Further one-on-one assistance was given to small systems for business plans, resulting in improvements in tracking water system expenses and attention to water rates for responsible fiscal planning. New Hampshire requires a full business plan as a condition for small systems receiving water infrastructure funding from programs administered by NHDES. Targeted TA is provided every year to these small systems to create their own business plan including a detailed asset inventory, detailed budget review, financial strategy and discussion of water rates. Under the capacity rules, existing systems that incur multiple significant deficiencies can also be required to prepare a Water Business Plan or equivalent asset management plan, especially when such deficiencies reflect an overall lack of managerial capacity.

It is worth noting that the reason for the decline in the number of TA visits in SFY20 was a result of the COVID-19 pandemic as well as inconsistency with recording these meetings in the database for virtual and phone assistance. As illustrated in Figure 7, the numbers of TA Visits have risen to pre-pandemic years.



### **III. STATEWIDE CAPACITY NEEDS IDENTIFIED THIS PERIOD**

From their inception, new PWSs must be designed to support adequate technical, financial and managerial resources for their long-term sustainability and reliability. This section describes state rules and control points for capacity assurance for new systems.

#### **1. DESIGN STANDARDS AND CAPACITY ASSURANCE REGULATIONS**

Capacity assurance for new water systems begins with a detailed review of system water sources and infrastructure design in accordance with state regulations. Applicable standards are established in the following Administrative Rules:

- Env-Dw 100 Public Water Systems: Purpose and Applicability.
- Env-Dw 401 PWS Classification; Well Siting Requirements; Hydrogeologic and Engineering Studies.
- Env-Dw 405 Design Standards for Small Public Water Systems.
- Env-Dw 406 Design Standards for Non-Community Water Systems.
- Env-Dw 600 Capacity Assurance for Proposed and Existing Public Water Systems.

New Hampshire's main control point for managerial and financial capacity assurance for the small systems is the water system Business Plan. As established by Env-Dw 602 Capacity Assurance for Proposed Public Water Systems, the business plan requires for system owners to document the water system asset inventory, management structure and financial assets.

New Hampshire approved seventeen small non-transient PWSs in SFY23. Having the business plan requirement for all these new systems allows us to start a conversation sooner rather than later, on how to properly manage the water system. DWGB's strategy is to be proactive with teaching new water system owners their responsibilities and roles in creating sustainable systems.

#### **2. CAPACITY ASSURANCE FOR NEW SYSTEM STARTUP**

Capacity development for new system startup is accomplished through a design review and approval sequence consisting of system concept approval, well siting and permitting, system infrastructure design review and approval and a comprehensive startup sanitary survey inspection. As part of this review, a number of control points are confirmed to ensure the system's technical, financial and managerial capacity for long-term viability and compliance with the SDWA. Key control points in this process are:

- Water System Concept Approval – to confirm the best available source of supply is a new standalone water system or water main extension from an existing system;
- Source Approval including well siting, quantity and quality evaluation;
- Water conservation plan (new community wells);
- Water use registration and reporting (new community wells using 20,000 gallons per day or more);
- Infrastructure design review and approval – water treatment, pumping, storage and distribution; Operation & Maintenance Manual;
- Water Sampling Plan for compliance with all federal and state drinking water quality requirements;
- Designation of a Certified Water Operator;
- Permit to Operate Fee;

- Asset Management Water Business Plan documentation of system technical, managerial and financial capacity;
- Water System Emergency Plan including new cybersecurity elements;
- Startup Sanitary Survey inspection review of system construction and operation for eight main system elements from well source to sampling locations; and
- Issuance of an informative ‘welcome packet’ to new system owners.

#### **IV. CAPACITY ASSURANCE ACTIVITIES FOR EXISTING PWS**

This section describes the different assistance programs administered by the DWGB to improve the managerial, financial and technical capacity of **existing** PWSs. Activities include general and targeted outreach, grants and loans, and one-on-one site visits and capacity meetings for TA.

##### **1. SOURCE WATER PROTECTION & EMERGENCY PREPAREDNESS ASSISTANCE**

DWGB programs include regular outreach activities for source water protection and emergency preparedness assistance to community PWSs, especially municipalities and village districts. Highlights and successes for the past fiscal year included:

- ❖ Held an annual source protection conference with 160 local officials and water operators in attendance;
- ❖ Conducted three workshops to train land use planners in source water protection;
- ❖ Supported through technical and financial assistance eight (8) community zoning ordinance adoptions or amendments to improve groundwater protection;
- ❖ Coordinated 18 large petroleum storage compliance inspections through the NHDES Aboveground Storage Tank Program at facilities upgradient of surface water intakes;
- ❖ Provided outreach on cybersecurity to community water systems through webinars, direct emails with links to resources and a PWS [cybersecurity](#) webpage; and
- ❖ Created a cybersecurity implementation grant program. Provided \$2M in grants to water and wastewater utilities to implement cyber security improvements identified in a cyber security assessment.

##### **2. GRANTS, LOANS AND ASSET MANAGEMENT**

NHDES administers various funding programs to provide financial assistance and incentives for PWS infrastructure improvements and sustainability. Highlights and successes for this reporting period include:

- ❖ Awarded \$9 million from the ARPA of 2021 for New Hampshire resident-owned communities/manufactured-home cooperatives (COOPs). New Hampshire COOPs are corporations whose members – the homeowners – own and operate their common infrastructure as a nonprofit. Often, these communities suffer from failing infrastructure from deferred maintenance by the previous private owner. Generally, the relatively small number of users on these systems and the expense of needed improvements leaves few resources to address those problems. Cooperative water systems receiving grants are shown in Table 3a;
- ❖ Awarded \$17.4 million from the DWSRF for infrastructure project loans. Systems receiving loans serving a population of up to 500 are shown in Table 3b;
- ❖ Awarded \$363,000 through the FY 2021 allotment of the Water Infrastructure Improvement for the Nation (WIIN) Act, Assistance for Small and Disadvantaged Communities Drinking Water Grant. Grant

funds were awarded to two small and disadvantaged water systems for improvements to their drinking water systems necessary to comply with the Safe Drinking Water Act (SDWA) and address water supply capacity issues;

- ❖ Awarded \$9.7 million in loans and \$9.7 million in grants from the Drinking Water and Groundwater Trust Fund for infrastructure projects. Systems receiving loans serving a population of up to 500 are shown in Table 3c;
- ❖ Administered a small system consolidation study grant program for water systems serving less than 10,000 people funded by the Drinking Water and Groundwater Trust Fund. In SFY23, three consolidation study projects were funded, awarding \$10,000 to three small community public water systems;
- ❖ Administered a land grant program for the New Hampshire Drinking Water and Groundwater Advisory Commission that awarded grants for five (5) projects totaling \$828,000 to protect 208 acres of wellhead protection areas and/or hydrologic areas of concern;
- ❖ Awarded 19 Local Source Water Protection grants to support high priority water supply land conservation, source security and other source protection projects totaling \$374,442;
- ❖ Awarded two contracts totaling \$324,427 and provided staff resources to increase monitoring of cyanobacteria in five surface water sources that periodically have cyanobacteria blooms;
- ❖ Administered the Tank Inspection Grant program. During SFY23, the 2021 grant round was completed, with 28 CWSs receiving tank cleanings and inspections through December 31, 2022. In total, 37 tanks were cleaned and inspected. The 2023 grant round is planned to begin in Fall 2023;
- ❖ Awarded 14 Asset Management grants totaling \$1,182,115 to assist communities with the development and/or the implementation of an asset management program. Since 2013 a total sum of approximately \$5,513,000 in grants have been awarded to 105 communities (the total amount of grants in Figure 8 totals out to 157 due to some communities receiving multiple grants since the existence of the program.) Table 4 has the latest Asset Management Grant Round for SFY23;
- ❖ Awarded 23 grants for a total amount of \$1,088,720 through the Strategic Planning Grant program using ARPA funds to help approximately 16% of large and municipal PWS communities complete planning projects. The Strategic Planning Grant provides grants up to \$50,000 per community with no match requirements. See Table 5 for a list of grant recipients;
- ❖ Hosted the ninth annual Asset Management Awareness Workshop held on 11/3/2022 with approximately 60 participants;
- ❖ Awarded 12 Energy Audits as part of the Asset Management Program (AMP). The Energy Audits program has proven to be a great complement to the AMP to help communities save money. See Figure 8 for a comparison of energy usage Pre-Audit vs. Post-Implementation and the potential savings;
- ❖ Administered a new grant program using ARPA funds to assist with the implementation of the energy audit findings that have been conducted within the past three years. The Energy Implementation Grant provides 50% of the total project cost up to \$100,000 per community;
- ❖ Administered the Water Audit Grant program. During SFY23, water audits and accompanying reports were completed for 25 CWSs. The systems also received training on water audits and addressing water losses;
- ❖ Administered four contracts totaling \$5,870,727 to four consultant firms for completing the lead service line inventory (LSLI), replacement plan, and sampling plan consulting services to all New Hampshire community water systems and non-transient non community systems. In addition, the consulting services from each firm will include a pilot study at three public water systems to establish the most effective and efficient means and methods of completing the inventories, along with the

development of a LSLI, replacement plan, and sampling plan, which may include digitizing of historic records, and conducting building inspections, test pits/potholing and water quality testing;

- ❖ Administered the Leak Detection Survey Grant program. During SFY23, the 2022 grant round was completed, with 80 CWSs receiving leak detection surveys. In total, 89 leaks were found, which were estimated to be leaking at least 520 gallons per minute; and
- ❖ SFY 2023 grant rounds also began, with 7 CWSs receiving leak detection surveys. The surveys for the remaining systems in the 2023 grant round will be completed in SFY24.

**Table 3a – SFY23 Cooperative Water Systems Receiving Grants**

PWS ID	Cooperative PWS Name	Town	Project Description	Drinking Water Grant Amount
1793020	Loon Estates Cooperative	Northwood	Water system upgrades	\$1,000,000
1163010	Town Line Village Cooperative	Holderness	Water system upgrades	\$1,000,000
0353020	Mascoma Valley Cooperative	Canaan	Water distribution upgrades	\$971,000
0583050	Rock Rimmon Cooperative	Danville	Wellhouse upgrades and new distribution	\$559,772
0883030	Mountain View Housing Cooperative	Gilford	New well house and distribution system	\$1,000,000
0043040	Catamount Hill Cooperative	Allenstown	Water distribution upgrades	\$718,700
0803020	Exeter River MHP Cooperative	Exeter	Water distribution upgrades	\$994,600
1403020	Presidential Pines Cooperative	Loudon	Water system upgrades	\$991,325
2303010	Pine Grove MHP Cooperative	Swanzey	Infrastructure Upgrade Completion Project	\$750,000
1993010	Monadnock Tenants Cooperative	Rindge	Pump House Improvements	\$1,000,000

**Table 3b – DWSRF SFY23 Loan Commitments to Systems Serving <500 People**

PWS ID	PWS Name	Town	Project Description	Loan Amount	Population Served	Projected Forgiveness
0162310	Whispering Brook	Bartlett	Water System Improvements	\$240,000	30	\$0
0612230	Rand Shepard Hill	Derry	Water System Improvements	\$4,888,000	158	\$1,466,400



**Table 3c – Drinking Water Groundwater Trust Fund SFY23 Loan and Grant Commitments to Systems Serving <500 People**

PWS ID	PWS Name	Town	Project Description	Approved GRANT Funding	Approved LOAN Funding	Population Served
0162100	Riversbend	Bartlett	Water System Improvements	\$42,000	\$168,000	50
1332030	Greystone Commons	Lee	Water System Improvements	\$200,000	\$0	25
2003040	Stony Brook Cooperative	Rochester	Water System Improvements	\$740,000	\$0	167
2421010	Glenclyff Improvement	Warren	Water System Improvements	\$650,000	\$0	43

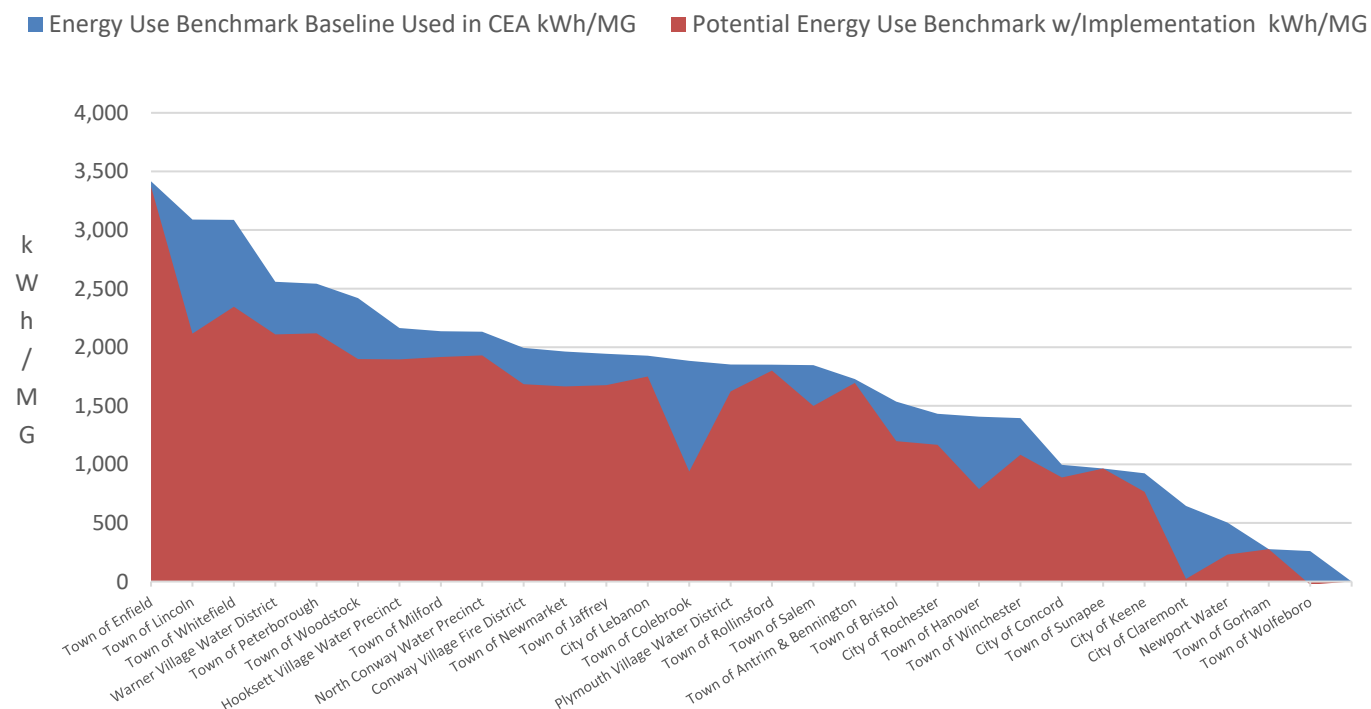
**Table 4 – Asset Management Grant Awards SFY23**

PWS Name	Town	Grant Amount
Franconia Village Water	Franconia	\$100,000
Bartlett Village Water Precinct	Bartlett	\$91,500
Town of Charlestown	Charlestown	\$100,000
Alton Water Works	Alton	\$88,800
Town of Walpole	Walpole	\$45,000
Town of Meredith	Meredith	\$100,000
Andover Village Water District	Andover	\$56,000
Mountain Lakes Water District	Haverhill	\$83,000
Jackson Water Precinct	Jackson	\$100,000
Town of Bristol	Bristol	\$100,000
Penacook-Boscawen Water Precinct	Boscawen	\$100,000
Cogswell Spring Water Works	Henniker	\$61,515
New London-Springfield Water System Precinct	New London	\$67,600
Sunapee Water Works	Sunapee	\$88,900
	<b>Subtotal</b>	<b>\$1,182,315</b>
	<b>Total Amount Awarded to Date:</b>	<b>\$5,513,400</b>

**Table 5 – Strategic Planning Grant Awards SFY23**

<b>PWS Name</b>	<b>Town</b>	<b>Grant Amount</b>
Bartlett Village Water Precinct	Bartlett	\$48,500
Lakeview Condo Assoc.	Enfield	\$18,720
Epping Water and Sewer Dept	Epping	\$50,000
Hooksett Village Water Precinct (Alternative Source)	Hooksett	\$50,000
Hooksett Village Water Precinct (Manganese Treatment)	Hooksett	\$35,000
Contoocook Village Precinct	Hopkinton	\$50,000
Jackson Water Precinct	Jackson	\$50,000
City of Keene	Keene	\$50,000
City of Lebanon	Lebanon	\$50,000
Town of Lincoln	Lincoln	\$50,000
Town of Meredith	Meredith	\$50,000
Loon Estates	Northwood	\$50,000
Town of Pelham	Pelham	\$50,000
Town of Pembroke	Pembroke	\$50,000
Town of Raymond	Raymond	\$50,000
Rye Water District (Water Treatment Facility)	Rye	\$50,000
Rye Water District (Garland Road)	Rye	\$50,000
Town of Stratham	Stratham	\$50,000
West Swanzey Water Co.	Swanzey	\$50,000
Town of Walpole	Walpole	\$50,000
Warner Village Water District	Warner	\$50,000
Town of Whitefield	Whitefield	\$50,000
Town of Woodstock	Woodstock	\$36,500
	<b>Subtotal</b>	<b>\$1,088,720</b>
	<b>Total Amount Awarded to Date:</b>	<b>\$2,055,720</b>

**Figure 8 - New Hampshire Water System's Energy Usage Comparison of Pre-Audit and Post-Implementation of Energy Audit Measures**



### 3. OPERATOR CERTIFICATION TRAINING AND OUTREACH

The New Hampshire Operator Certification program supports numerous outreach and training activities for water system operators, owners and managers. Highlights and successes for this reporting period include:

- ❖ Contracting with the New Hampshire Water Works Association (NHWWA) for two Small Public Water System Operator Grade IA courses, two Basic Math courses and two Operator Exam Review sessions;
- ❖ Contracting with the New England Water Works Association (an approved IACET training provider) for 10 instructor-led training sessions specifically targeted for New Hampshire water works operators;
- ❖ Coordinating with NHWWA to provide six Operator Roundtables throughout the state. These are operator-driven roundtable discussions, which allow industry professionals to relay challenges confronting them and their professions. These forums also allow operators to ask questions of state officials and for the state to discuss anticipated and new regulations;
- ❖ Participating on the New England Water Works Operator Certification Committee. This is a regional committee comprised of New England state operator certification officers, USEPA representatives and professional water works operators. The committee promotes water works operator certification and initiatives to grow and strengthen the profession; and
- ❖ Participating in other statewide industry trade shows and training seminars throughout the year with the New Hampshire Water Works Association, New England Water Works Association, Granite State Rural Water Association, RCAP Solutions and other training partners.

**Table 6 –Operator Certification Activities**

	<b>CY2020</b>	<b>CY2021</b>	<b>CY2022</b>
Active Certifications	1034	1323	997
Exams Administered	0*	86**	158

\*NHDES did not hold any exams in certification year (CY) 2020 due to the COVID-19 pandemic. Instead of in-person exams, efforts were made to get an online testing program for New Hampshire, which is currently up and running.

\*\* Starting in May 2021, computer-based exams became available and those numbers are not reflected here.

#### **4. WATER CONSERVATION AND WATER LOSS CONTROL**

Promoting water conservation through technical assistance, outreach and training helps water systems and the public understand the importance of reducing water loss and waste. Highlights and successes from the NHDES Water Conservation Program for this reporting period include:

- ❖ Provided water conservation outreach to the public at two events and to PWSs by presenting at a conference, writing newsletter articles and updating guidance documents;
- ❖ Administered the Water Audit Grant program and the Leak Detection Survey Grant program;
- ❖ Assisted seven existing CWSs with developing water conservation plans (WCPs) in accordance with Env-Wq 2101;
- ❖ Reviewed water conservation-related compliance items and provided technical assistance for the 143 CWSs that are currently required to implement NHDES-approved WCPs;
- ❖ Completed an analysis of water use data and a summary of water conservation information for 44 CWSs; and
- ❖ Issued five drought updates to all CWSs in the state. The drought updates included a summary of impacts on water resources, information about the severity of the drought, drought outlooks and guidance on implementing outdoor water use restrictions.

#### **V. STATEWIDE REVIEW OF IMPLEMENTATION PROGRESS**

Review of the capacity program implementation progress consists of biweekly meetings about water systems receiving assistance by the lead TA contacts, quarterly measures tracking through the statewide Measures Tracking and Reporting System (MTRS) and annual reports to USEPA.

At the end of each accounting year the DWGB reassesses each system on the one-on-one service roster. A numerical deficiency rating is calculated when the system is added to the list and then again when the system is removed from the list. A successful capacity program should see a lower numerical deficiency rating for each system with the application of services.

Capacity services will not be provided in a vacuum, but in accordance with a schedule of required compliance accomplishments. (Systems identified for capacity development typically require both enforcement and TA.) Systems on the NHDES enforcement track will be returned to an active status if they are not achieving their capacity goals. The NHDES DWGB enforcement program has three full time equivalent staff. The staff can levy administrative fines and can seek larger penalties through full legal action via the Attorney General's Office.

## VI. CAPACITY DEVELOPMENT STRATEGY IMPROVEMENTS

The DWGB has been helping PWSs to develop and harvest the benefits of capacity development by working within their existing cultures. Sections III, IV and V describe the recent initiatives that the DWGB has implemented to encourage capacity development, including successes.

Capacity development will continue to be challenged and at times impaired by the degradation of the water infrastructure as systems age and statewide reductions in volunteerism have made it difficult to strategically replace key personnel. Asset failure, shortage in staffing, budget failures and continuous regulatory demands including emerging contaminants are overwhelming challenges to all PWSs.

Systems that are dealing with these challenges are strongly recommended, and at times required, to complete an asset management plan as this will provide a clearer picture on how to ensure capacity within their water systems. While asset management is certainly very unique to each water system, DWGB has adopted the asset management framework developed by USEPA to assist with the creation and implementation of an asset management programs throughout New Hampshire.

For SFY24, New Hampshire will continue to build and enhance its capacity development strategies for existing systems, including:

- Continued development of water system business plans for asset management planning for systems serving <500 population that receive funding from the DWSRF and the state Drinking Water and Groundwater Trust Fund;
- Continued one-on-one outreach and assistance to non-compliant systems and those lacking general capacity assurance;
- Expanded technical capacity investigation during sanitary surveys for community and non-transient water systems by inquiring about distribution system function and water use;
- Targeted outreach to small systems on repeat bacteria sampling requirements following total coliform detections;
- Targeted outreach to specific water system categories identified as incurring higher numbers of violations;
- Online training and seminars to assist small system compliance with the new state MCLs for arsenic (5 ppb) and four PFAS compounds (PFOA, PFOS, PFNA, PFHxS);
- Continued water conservation outreach to all CWSs for improved resiliency to drought events;
- Promote cybersecurity at water systems through education, outreach, and funding programs; and
- Continued collaboration with local and national TA providers including Granite State Rural Water Association, Rural Community Assistance Partnership RCAP Solutions, Environmental Finance Center Network, New England Water Works and New Hampshire Water Works Association.