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May 21, 2025

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Subject: Massachusetts Certified Operator Program Annual Report for 2024

Dear Ms. O'Connor:

Attached is the Massachusetts Department of Environmental Protection (MassDEP) Annual Report for the Massachusetts Certified Operator Program for the Calendar Year from January 1, 2024 through December 31, 2024.

If you have any questions, please contact Michael Celona (michael.celona@mass.gov) or Grace Ronca (grace.ronca@mass.gov).

Sincerely,

Yvette DePeiza
Director - Drinking Water Program
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MASSACHUSETTS CERTIFIED OPERATOR PROGRAM 2024 ANNUAL REPORT

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Introduction

The following certified operator annual report covers the reporting period for the calendar year from January 1, 2024, through December 31, 2024.

The EPA-approved Massachusetts Operator Certification Program meets the public health objectives (as per EPA guidelines) and is designed to ensure that (1) customers of any public water system be provided with an adequate supply of safe, potable drinking water; (2) consumers are confident that their water is safe to drink; and (3) public water system operators are trained and certified and have knowledge and understanding of the public health reasons for drinking water standards.

The Massachusetts Department of Environmental Protection (MassDEP) Regulations that pertain to certified operators are 310 CMR 22.11B: Public Water Systems Certified Operator Staffing Requirements, which can be found at <https://www.mass.gov/doc/310-cmr-2200-the-massachusetts-drinking-water-regulations/download>.

Anti-backsliding

There has been no backsliding regarding implementation or policy of the State's Operator Certification Program. Slight adjustments were made to the State's Operator Certification Program during the review period due to the finalization of the Contract Operator policy, which is discussed in the section "Program Review." The development of this policy did not cause any backsliding regarding the implementation or policy of the Operator Certification Program.

Authorization

Massachusetts is authorized to operate a certified operator program. No statutory or regulatory changes were made during the period covered by this report that modify the state's authorization to operate its certified operator program.

System Classification

As of the end of this reporting period, there were 1,579 PWSs in Massachusetts of which 524 are community systems (COM), 240 are non-transient non-community systems (NTNC), and 815 are transient non-community systems (TNC) (Table 1).

Table 1: Massachusetts Water System Classification Matrix

Year	Community	NTNC	TNC	Total Number of PWS
2024	524	815	240	1,579

The classification of PWS is defined in regulation section 310 CMR 22.11B(4). The PWS listed in Table 1 are further classified in Table 2 by the Distribution and Treatment classification of each system. The Distribution and Treatment classifications typically coincide with the operator license grade that an operator must have to operate that PWS.

Table 2: Breakdown of Distribution and Treatment Classifications for All MA PWS

PWS Type	Distribution Class	Treatment Class	Number of PWS
COM	1D		5
COM	1D	1T	23
COM	1D	2T	4
COM	2D		15
COM	2D	1T	71
COM	2D	2T	51
COM	2D	3T	15
COM	2D	4T	3
COM	3D		18
COM	3D	1T	12
COM	3D	2T	35
COM	3D	3T	24
COM	3D	4T	17
COM	4D		10
COM	4D	1T	1
COM	4D	2T	3
COM	4D	3T	2
COM	4D	4T	15
COM	VSS		65
COM	VSS	1T	128
COM	VSS	2T	6
COM	VSS	3T	1
TNC	VSS		461
TNC	VSS	1T	319
TNC	VSS	2T	2
TNC	VSS	VND-1T	33
NTNC	VSS		89
NTNC	VSS	1T	148
NTNC	VSS	2T	3

PWS are classified by MassDEP as:

- VND (Water Vending Machines),
- VSS (Very Small Systems),
- Distribution (1D, 2D, 3D, and 4D), or
- Treatment (1T, 2T, 3T and 4T).

The increasing numerical class for distribution and treatment indicates an increasing complexity of operation, and a higher level of training, knowledge, and experience required for operation. MassDEP regulations and policies are in place to ensure that a designated certified operator is available for each operating shift.

PWS with treatment processes are categorized using a point rating system that reflects the complexity of the operation for units that are present in the facility. The point rating system is defined in the table included in regulation section 310 CMR 22.11B(4)(a).

Distribution systems are categorized according to the population served as follows, except for non-community public water systems, which are all classified as VSS regardless of the population served by the non-community system:

- systems serving 500 people or less are classified as a VSS system;
- systems serving 501-1,500 people are classified as a 1D system;
- systems serving 1,501 to 15,000 people are classified as a 2D system;
- systems serving 15,001 to 50,000 people are classified as a 3D system; and
- systems serving over 50,000 people are classified as a 4D system.

VSS systems may be given a treatment classification in addition to their VSS distribution classification. VSS systems that only use disinfection are not given a treatment classification, as disinfection is considered an integral part of the distribution system.

Free standing vending machines consisting of filters with the addition of chemicals and/or reverse osmosis systems are classified as follows:

- 2,000 gallons per day and less (VND-1T);
- 2,001 gallons per day to 5,000 gallons per day (VND-2T);
- 5,001 gallons per day to 50,000 gallons per day (VND-3T); and
- 50,001 gallons per day and more (VND-4T).

Free standing vending machines consisting of filters and/or ultra-violet disinfection systems with no chemical addition are classified as follows:

- 500 gallons per day or less (VND-1D); and
- 501 gallons per day and more (VND-2D).

PWS report affiliation/staffing data to MassDEP throughout the year using staffing plans, annual statistical reports, and contract certified operator forms. The various forms and templates used by PWS can be found at <https://www.mass.gov/lists/drinking-water-permits-forms-and-templates>. In addition, MassDEP maintains a database called eDEP, which serves as a platform for submitting environmental reports, certifications, data, and permits to MassDEP. Internally MassDEP keeps information in MassDEP's Water Quality Testing System (WQTS) database. The WQTS database is the Department's central database for tracking water supply data and operational data, including operators, and reporting to EPA.

During this reporting period, no changes were made regarding classification of PWS.

Certified Operator Staffing Requirements

Massachusetts's regulations require that all Public Water Systems (PWS) be operated by a Massachusetts certified operator. The regulations and policies in 310 CMR 22.11B(1): Operation & 310 CMR 22.11B(2): Staffing Requirements ensure that certified operators are making process control decisions and that a designated certified operator is available for each operating shift. Some exemptions to staffing requirements are described in regulation section 310 CMR

22.11B(5). The staffing requirements for PWS are also described on the following webpage:
<https://www.mass.gov/info-details/certified-operator-staffing-requirements>.

All PWS must have a Primary Operator with a license grade at least equal to the grade of the PWS classification. Primary Operators must have a “full” license status, meaning that they meet all education and experience requirements for that license. Additionally, all COM PWS must have a Secondary Operator with a license grade no less than one grade below that of the PWS classification. The Secondary Operator may have an “Operator-in-Training” (OIT) license status, meaning that they do not yet meet all education and/or experience requirements for that license, but have passed the applicable examination to obtain that license. Primary and Secondary Operators are designated for the Treatment System and the Distribution System of a PWS. The Primary and Secondary Operators are in direct supervision (responsible charge) of the water system. MassDEP reviews the status of PWS throughout the year to ensure that they have the required certified operators.

During this reporting period, there were 30 PWS in Massachusetts that did not have an appropriately licensed certified operator for the full year, or a portion of the year as identified in the sanitary survey scheduled actions and those that had been issued and certified operator compliance notices. This included thirteen (13) COM and seventeen (17) TNC systems. Regional staff are continually working to verify the status of the operators for these systems. MassDEP takes compliance (including technical assistance) and enforcement actions to require these systems to obtain the appropriate grade of operator. Table 3 compares the number of PWS without a certified operator for at least a portion of the year in the past five years (2020-2024).

Table 3: PWS Lacking a Certified Operator

Year	PWS Lacking a Certified Operator			Total Number of PWS
	COM	NTNC	TNC	
2024	13	0	17	30
2023	10	1	25	36
2022	6	7	13	26
2021	22	10	12	44
2020	7	5	16	28

Drinking water operator licenses are issued and tracked by the Massachusetts Division of Occupational Licensure (DOL) (formerly the Division of Professional Licensure). All licensing information is periodically exchanged between DOL and MassDEP via electronic file transfers. Additionally, operator license information is publicly available on the Accela Citizen Access website at <https://elicensing21.mass.gov/CitizenAccess/GeneralProperty/PropertyLookUp.aspx?isLicensee=Y>. This portal shows an operator’s licenses, license statuses, and other pertinent information about that licensee.

Technical Assistance

Massachusetts continued to use MassDEP capacity development staff and small system third-party technical assistance providers to assist systems to come into and maintain compliance. MassDEP maintains a list of Technical Assistance resources on a webpage located at <https://www.mass.gov/info-details/public-water-system-capacity-development#technical-assistance->.

Temporary Emergency and Provisional Certification

Massachusetts has temporary and provisional options for certification on an emergency basis. If there is an emergency situation facing a system such as an unforeseen operator departure or a newly registered system that does not yet have an operator, the PWS may be allowed temporary and/or provisional certification.

- Systems may apply to the Board of Certification of Operators of Drinking Water Supply Facilities (Board) for a Temporary Emergency Certificate (TEC) stating the reason for the emergency, the name of the person who is going to temporarily run the system, and the system's plan to relieve the emergency situation. The person identified to be the operator must have practical knowledge relevant to the system.
- The Board reviews the application and either approves or denies it.
- If approved, the TEC automatically expires in 6 months. In that 6-month period, the system is expected to find a permanent certified operator for the system.
- When a TEC is going to expire and the system has not been able to hire a properly certified operator, the system may apply for a Provisional Certificate (PRO). The PRO is valid for a 6-month period and may not be renewed.

During this reporting period, Massachusetts issued 42 TECs and 23 PRO. A significant number of Treatment PROs (21) were issued to one company which manages many Water Vending Machine systems. Refer to Table 4 for a comparison of the number of issued TECs and PROs in the past five years (2020-2024).

Table 4: TECs and PROs Issued by the Board

Year	Type of Certificate				Total Number of Certificates
	VSS TEC	Distribution TEC	Treatment TEC	PRO	
2024	2	7	27	23	65*
2023	4	9	74	1	88
2022	2	5	5	0	12
2021	0	8	5	1	14
2020	1	5	8	0	14

* During the reporting period, the Board issued 6 certificates that were TECs for both distribution and treatment.

After the system is temporarily in compliance, MassDEP and/or water organization staff will work with the system, instructing them how to obtain a permanent certified operator. MassDEP staff has compiled a certified operator directory that lists all operators in the state that are willing to work on a contract basis. This directory is available at <https://www.mass.gov/info-details/certified-operator-directory>. If the system wants to hire a contract certified operator, they

consult the listing and choose a compatible certified operator for their system. If a system delegate/employee wants to become a certified operator, the MassDEP and/or water organization staff will work with the system to get the individual training and help them apply for the state exam for operator certification.

Certified Operator Qualifications

A summary and description of the drinking water certification process is available at <https://www.mass.gov/how-to/apply-for-a-drinking-water-operator-in-training-certificate>. The requirements for certified operator certification are detailed in 236 CMR 4: Board of Certification of Operators of Drinking Water Supply Facilities, which is available at <https://www.mass.gov/doc/236-cmr-4-public-water-supply-operator-certification/download>.

During this reporting period, there have been no changes to the qualifications for certified operators. Massachusetts no longer accepts for approval requests for licensure from “legacy” operators based on pre-existing licensure prior to the promulgation of the current regulations.

Examinations

The VSS, Distribution, and Treatment exams are provided and validated by Water Professionals International (WPI) (formerly the Association of Boards of Certification). Information about WPI can be found at <https://www.gowpi.org/>. Examinations are administered electronically by PSI Exams testing company, which can be found at <https://test-takers.psiexams.com/abc-ma/test>. Examinations are administered at numerous PSI testing centers throughout Massachusetts and in New Hampshire and Rhode Island.

In 2010, the Board adopted two significant policy changes that impacted how drinking water exams are administered in Massachusetts. These policies, which went into effect on January 1, 2011, included requirements that exams must be taken sequentially and that applicants must complete training requirements to sit for Grade 2 or higher-level exams. These policies were intended to “raise the bar” for operators by ensuring that operators are properly trained to perform their duties and protect public health. The following are the training requirements that operators must meet in order to sit for examinations.

- Operators taking a Grade 1 or a VSS examination do not need to take a training course.
- Operators taking a Grade 2 or above distribution examination are required to take a "Basic Distribution" training course. Operators only have to take this class once (e.g. if an operator takes this training course to take the Grade 2 distribution exam, they do not have to take the course again to take the Grade 3 and 4 exams).
- Operators taking a Grade 2 treatment examination are required to take a "Basic Treatment" training course.
- Operators taking a Grade 3 or 4 treatment examination are required to take an "Advanced Treatment" training course. Operators only have to take this class once (e.g. if an operator takes this training course to take the Grade 3 treatment exam, they do not have to take the course again to take the Grade 4 exam).

Table 5 below shows the pass rates for each examination type during this calendar year. Table 6 compares the pass rates during this calendar year with pass rates from the past five years (2020-2024). Although there are many factors which impact exam passing rates, the Board continues to

be encouraged by these results and feels a clear pathway is being provided for the next generation of drinking water operators.

Table 5: Summary of WPI Exam Results in Massachusetts - 2024

License Type	Total #	Total # Pass	Total # Fail	% Pass	% Fail
VSS	16	13	3	81%	19%
D1	467	220	247	47%	53%
D2	219	115	104	53%	47%
D3	105	51	54	49%	51%
D4	68	22	46	32%	68%
T1	358	183	175	51%	49%
T2	173	91	82	53%	47%
T3	76	50	26	66%	34%
T4	80	23	57	29%	71%

Table 6: Comparison of 2020-2024 Pass Rates

License Type	2020 % Pass	2021 % Pass	2022 % Pass	2023 % Pass	2024 % Pass
VSS	89%	85%	83%	94%	81%
D1	66%	61%	52%	46%	47%
D2	61%	58%	45%	43%	53%
D3	56%	49%	44%	50%	49%
D4	42%	40%	44%	58%	32%
T1	59%	58%	50%	54%	51%
T2	60%	57%	62%	53%	53%
T3	69%	64%	56%	63%	66%
T4	32%	43%	27%	33%	29%

Education and Experience

In order to become certified in Massachusetts, a person must pass the appropriate certification exam and meet education and experience requirements. Education beyond the minimum requirements or possession of a lower grade certificate with appropriate experience in a lower classified system can reduce the amount of experience required. The following reflects the minimum education requirements and corresponding experience for each grade of certification:

- VSS - A high school diploma or GED and 6 months experience in the operation of a VSS or higher system.
- 1T - A high school diploma or GED and 2 years of experience in the operation of a 1T or higher treatment system.
- 1D - A high school diploma or GED and 2 years of experience in the operation of a 1D or higher distribution system.
- 2T - A high school diploma or GED and 3 years of experience in the operation of a 2T or higher treatment system.
- 2D - A high school diploma or GED and 3 years of experience in the operation of a 2D or higher distribution system.

- 3T - A high school diploma or GED and 5 years of experience in the operation of a 3T or higher treatment system.
- 3D - A high school diploma or GED and 5 years of experience in the operation of a 3D or higher distribution system.
- 4T - One year of college and 5 years of experience in the operation of a 4T or higher treatment system.
- 4D - One year of college and 5 years of experience in the operation of a 4D or higher distribution system.

The education and experience requirements for operator certification can also be found on the MassDEP website at <https://www.mass.gov/info-details/education-experience-requirements-for-full-operator-certification>.

Reciprocity

Reciprocity Applications are received and processed by the Board. All applicants must meet the requirements of 236 CMR 4.05(5) & (6) and Drinking Water Board (DWB) Policy 2010-02(IV) (<https://www.mass.gov/doc/policy-for-drinking-water-exams/download>).

During this reporting period: there were four (4) licenses issued via reciprocity. Refer to Table 7 for details about licenses issued via reciprocity in previous years.

Table 7: Licenses Issued via Reciprocity

Year	Number of Licenses
2024	4
2023	3
2022	1

The Board's current policy on reciprocity is included in DWB Policy 2010-02(IV). In late 2024, the Board began discussions about the creation of a separate reciprocity policy to provide some exemptions for reciprocity applicants in exceptional circumstances from the Board's requirements for sequential examination and pre-requisite training courses. The policy is expected to be finalized and published in 2025.

Certified Operator License Data

Table 8 contains the number of current operator licenses in Massachusetts from the past five years. The table includes both full and OIT licenses. The table also includes C licenses, which are licenses that were administered before 1989 when the Distribution and Treatment license classes were first introduced. The certified operator licensing data is extracted from a dataset provided by DOL. The numbers in the table are not necessarily equal to the number of operators with a particular license type, as some operators hold multiple licenses.

Table 8: Total Number and Type of Drinking Water Operator Licenses in Massachusetts – 2020-2024

License Type	2020	2021	2022	2023	2024
C1	17	13	13	10	10
C2	31	22	22	17	17
C3	13	9	9	7	7
C4	62	36	36	27	30*
D1	398	356	409	321	343
D2	618	568	628	526	607
D3	470	431	464	424	481
D4	247	240	257	228	245
D1-OIT	462	438	509	421	338
D2-OIT	310	289	295	269	252
D3-OIT	193	206	209	175	173
D4-OIT	195	198	208	187	195
T1	406	371	421	348	379
T2	368	335	387	350	403
T3	262	252	277	235	268
T4	277	267	286	256	277
T1-OIT	508	468	521	424	354
T2-OIT	337	343	356	291	265
T3-OIT	210	227	230	186	193
T4-OIT	188	184	183	167	169
VSS/VS/VT	211	166	181	154	152
Total Number	5,783	5,419	5,901	5,023	5,158

*Between 2023 and 2024, two operators with C4 licenses renewed their license late, which is why their licenses were not counted in the 2023 data. Additionally, one operator with a C4 license reactivated a previously inactive license, which is why there was an “increase” in the number of active C4 licenses in 2024.

Enforcement

Enforcement by MassDEP

MassDEP has a very active compliance and enforcement strategy for systems that fail to comply with the MassDEP standards, guidelines, and policies. MassDEP issues a Notice of Noncompliance (NON) or Notice of Noncompliance and Compliance Schedule Approval (NONCSA) to any system that does not have a certified operator or that does not have an operator with the appropriate grade license. **During this reporting period, MassDEP issued three (3) NONs to systems that did not meet the certified operator requirements.**

Higher-level enforcement (HLE), with penalties in certain cases, is issued to those systems that are chronic offenders. The types of HLEs include a Unilateral Administrative Order (UAO), Administrative Consent Order (ACO), and Administrative Consent Order with Penalty (ACP). **During this reporting period, MassDEP issued zero (0) HLEs to systems that did not meet the certified operator requirements as identified in the sanitary survey scheduled actions.** MassDEP staff works closely with public officials and/or owners to bring the public water

system into compliance. MassDEP can also refer operators to the Board for potential discipline if the issue identified is operator specific.

Enforcement by the Board

The Board continued to review complaints against operators and take appropriate actions. Refer to

Table 9 for a list of enforcement actions by the Board during this reporting period.

Table 9: Drinking Water Board Enforcement Actions

Enforcement Action	2022	2023	2024
New case opened	2	1	10
Case Closed	5	1	12
Pending Board Action (waiting for a response from the licensee)	0	0	1
Pending Prosecution	0	0	0
Pending Investigation	0	0	0
License Revoked	0	1	3
License Suspended	0	5	0

The Board continues to enter into consent agreements with operators with criminal records.

In December 2004 the Massachusetts legislature enacted House Bill 5074, effective April 1, 2005. This bill provided new enforcement powers to boards under the former Division of Professional Licensure. The Board has the authority to suspend licenses immediately for serious infractions such as intentional falsification of reports that are confirmed by investigation. The Board also has the ability to fine individuals for infractions. The fines are \$100, \$250, \$1,500 and \$2,500 based on first through fourth offense. Operating without a license or a suspended license will cost \$1,500 for the first offense and \$2,500 for the second offense.

Certification Renewal

Massachusetts's operator licenses run on a two-year cycle. The current two-year cycle, which includes this reporting year, began on January 1, 2024, and will expire on December 31, 2025.

Operators are sent renewal notices prior to the expiration of their licenses. In order to renew a license, operators must submit an online renewal application and pay a fee. Licenses that were renewed by the end of 2023 are valid for two years until 12/31/2025.

Recertification

Applicants that fail to renew their licenses by the end of the two-year license period may renew their license during the next two-year renewal cycle by paying the application fee plus a late fee. Applicants that fail to renew their licenses by the end of the next two-year license period must re-take the exam and re-apply for a license. There were no operators that fell into this category.

Changes to Total Number of Operator Licenses

Table 10 below identifies the change in the number of operator licenses from 2023 to 2024. It includes both renewed licenses and new licenses for each operator category.

Table 10: Changes in Total Numbers of Drinking Water Licenses

License Type	Change in Number of Licenses
C1	0
C2	0
C3	0
C4	0 ¹
D1	22
D2	81
D3	57
D4	17
D1-OIT	-83
D2-OIT	-17
D3-OIT	-2
D4-OIT	8
T1	31
T2	53
T3	33
T4	21
T1-OIT	-70
T2-OIT	-26
T3-OIT	7
T4-OIT	2
VSS/VS/VT	0
Total Number	135²
1. Does not count the C4 licenses that were renewed late/reactivated.	
2. Note: The change in drinking water operator licenses shows an increase in 2024 compared to 2023	

Training Contact Hour (TCH) Requirements

In order to renew their certification, all operators, including operators-in-training, must demonstrate to the satisfaction of the Board that they have completed training during the previous two years in accordance with the following requirements:

- VSS and VND operators need 5 TCHs or more
- Grade 1 and 2 operators need 10 TCHs or more
- Grade 3 operators need 15 TCHs or more
- Grade 4 operators need 20 TCHs or more

To obtain TCHs, operators must take training courses approved or accepted by the Board. These courses are given by New England Water Works Association, Mass Rural Water Association,

Massachusetts Water Works Association, Rural Community Assistance Program, EPA, MassDEP and various other organizations individually approved by the Board. MassDEP also co-sponsors courses at various times throughout the year. Appropriate college and university credits are accepted as well. There are also Board approved on-line training courses that operators can take for TCHs. During this reporting period, the Board approved 86 training courses for TCHs, which are listed in Table 11.

Table 11: Training Classes Approved for TCHs by the Board of Certification in 2024

Maximizing the Chemical Feed System	NEWWA/RIWWA Joint Membership Meeting
Confined Space Entry	Contaminants of Concern – PFAS
Confined Space Hazard Awareness Training	Cybersecurity Basics for Water and Wastewater Systems
OSHA 10-Hour Construction Outreach Training	Powered Industrial Trucks, Manufactures
Work Zone Safety	Recent Incidents in the Public Sector
Lead and Copper Rule Requirements Training	Safeguarding the Environment: Watershed Management for Environmental and Economic Sustainability
NEWWA Spring Conference Session 1 – Distribution I	Emergency Response Training
NEWWA Spring Conference Session 2 – Water Treatment I	NEWWA Annual Conference 2024 – Session A: Water Treatment
NEWWA Spring Conference Session 3 – Management and Finance	NEWWA Annual Conference 2024 – Session B: Management & Finance
NEWWA Spring Conference Session 4 – Cross Connections	NEWWA Annual Conference 2024 – Session C: Groundwater/Water Resources
NEWWA Spring Conference Session 5 – Customer Service	NEWWA Annual Conference 2024 – Session D: Distribution
NEWWA Spring Conference Session 6 – Distribution II	NEWWA Annual Conference 2024 – Session E: Regulatory
NEWWA Spring Conference Session 7 – Water Treatment II	NEWWA Annual Conference 2024 – Session F: Asset Management & Data Integration
NEWWA Spring Conference Session 8 – Young Professionals	NEWWA Annual Conference 2024 – Session G: Town Hall Discussion: Impending Regulations Now, Near Future, Far Future
NEWWA Spring Conference Session 9 – Work Force	Workplace Fall Protection
NEWWA Spring Conference Session 10 - Dams	Mobile Elevated Work Platform Operators
NEWWA Spring Conference Session 11 – Distribution/Storage	Fall 2024 Training Session: Preparing for a Cross-Connection Audit
NEWWA Spring Conference Session 12 – Water Treatment III	Cyber 102 Training
NEWWA Spring Conference Session 13 – SCADA & Operational Technology	Cybersecurity 101
NEWWA Spring Conference Session 14 – Water Resources	Innovative Solutions Webinar: Turning Leakage Reduction into a Flood of Money and a Drop in Carbon Output! Exploring New Funding Sources through the Water Leakage-Carbon Nexus

NEWWA Spring Conference Session 15 - Regulatory	Protecting Public Health Webinar: Lead and Copper Rule Revisions and Improvements: Who will be impacted and what comes next?
NEWWA Spring Conference Session 16 – Distribution III	Confined Space Entry Rescue Training
NEWWA Spring Conference Session 17 – Water Treatment IV	Confined Space Entry Training
NEWWA Spring Conference Session 18 – Safety/Emergency Preparedness	Lockout Tagout Training
NEWWA Spring Conference Session 19 – Groundwater	IDEXX Facility Tour
NEWWA Spring Conference Session 20 – Asset Management	Innovative Solutions Webinar: Unlocking the Power of Generative AI and Digital Twins in the Water Industry
NEWWA Spring Conference – Diversity & Allyship Breakfast	Water Sector Cybersecurity Meeting
OSHA 8-Hour HAZWOPER Refresher Training	Pipeline Management Workshop
Water Quality Symposium	NEWWA/NEWEA Information Technology & Asset Management Fair
Developing a Hazard Communication Plan	2024 Water Resources and Sustainability Symposium
Cyber 101	DLS Inspections: Recent Incidents in the Public Sector
WTO1	Municipal Training
WTO2	Preparing for Round 2 of AWIA
WTO3	December Membership Meeting
Community Fluoridation Information Training for Water Operators	We WARN Together: Integrating WARN in RRAs and ERPs
2024 Southeastern Massachusetts Drinking Water Fair – Training Session 1 -Tackling Treatment & Distribution	Safe Drinking Water Act and National Primary Drinking Water Regs for PWSs
2024 Southeastern Massachusetts Drinking Water Fair – Training Session 2 – DEP Update	Water Sector Cybersecurity Webinar: Essentials and Updates
Cybersecurity Awareness Training for Tribal Drinking Water and Wastewater Utilities	PFAS Zero: Innovative Treatment and Disposal Options
Cyber Refresher	OSHA Confined Space Entry Training
ACE24	NEWWA/NHWWA Joint Membership Meeting
OSHA HAZWOPER 8-Hour Operations Training	

TCH Audits

The Board periodically audits license renewal applications to make sure applicants have obtained the required TCHs. The last audit was performed following the 2022-2023 license renewal period.

Resources Needed to Implement Program

The operator certification program in Massachusetts has been working successfully for many years. The Board continues to utilize the resources of the Division of Occupational Licensure to implement the licensing and operator enforcement portion of the operator certification program. MassDEP chairs the Board and MassDEP Drinking Water Program staff provide training,

compliance, and technical assistance to certified operators. MassDEP also refers certified operators with compliance issues to the Board for review and potential disciplinary action.

MassDEP has a very active operator certification program which has been integrated into the daily activities of drinking water program staff (includes staff in Boston and the four (4) regional offices). Program activities include (but are not limited to) working with the Board of Certification of Operators of Drinking Water Supply Facilities and the Division of Occupational Licensure, providing technical assistance to operators, completing sanitary surveys, assisting in the completion of accurate staffing plans, taking enforcement actions, investigating complaints, providing technical assistance and other operational and administrative tasks. It is estimated that three (3) FTEs are needed to implement the Operator Certification program. The cost per FTE is approximately \$198,356. See Table 12 below for cost estimate for implementing the Operator Certification Program. The program and staff are funded through a variety of funding sources; including but not limited to PWS Supervision (PWSS), State account (0100), Massachusetts Safe Drinking Water Act Assessment funds, and SRF set-asides. The number of FTEs has not changed.

Table 12: Operator Certification Program Expenses – SFY 2024

FTEs to Implement Operator Certification Program	3
Cost per FTE	\$198,356
Total Cost	\$595,068

Stakeholder Involvement

Stakeholder involvement is important to the public health objectives of the program. It helps to ensure the relevancy and validity of the program, and the confidence of all interested parties. MassDEP includes ongoing stakeholder involvement in the revision and operations of the operator certification program.

The Board meets monthly to review applications and conduct other business. The Board is comprised of seven members, three of whom are ex-officio members (Department of Environmental Protection, Department of Public Health, and Department of Conservation and Recreation). The four remaining members, who are appointed by the governor, represent a labor organization (vacant), New England Water Works Association, Massachusetts Water Works Association, and the Professional Engineer community. All meetings are open to the public, except when the Board sits in executive session for permitted instances.

The MassDEP Chairman of the Board provides the Board with the opportunity to have direct input in MassDEP policies and programs.

The Chairman also serves on the New England Water Works Association Operator Certification Committee, which has representatives from each of the New England states. This committee discusses certified operator issues, concerns, policies and programs. There were no meetings held in 2024.

The Board plays an active role at Water Professionals International (WPI). Board members have served on WPI committees as well as New England Water Works Association and Massachusetts Water Works Association committees. A MassDEP representative attended the WPI Annual Conference in Newport Beach, California from January 9-12, 2024 and gave a presentation titled “Data Deep Dive: Trends and Future Demands in Operator Licensing- Massachusetts As A Case Study”.

MassDEP held three meetings of its Safe Drinking Water Act Advisory Committee (SDWAAC) on March 15, 2024, August 16, 2024, and December 20, 2024. SDWAAC works with MassDEP to provide recommendations and general input on the administration of the Safe Drinking Water Act. Attendees routinely include the Massachusetts Water Works Association, the Massachusetts Water Resources Authority, the New England Water Works Association, US EPA, and several public water systems and environmental consulting firms. At the meetings, Board Chairman or other MassDEP staff provided updates on operator certification issues, such as upcoming trainings, volume of license applications, etc., and answered questions.

The Board Chair and assigned MassDEP Drinking Water Program staff also participate in the USEPA Capacity/Certification program. Staff attended the quarterly USEPA Region 1 program meetings.

Program Review

The Board continues to investigate all complaints of impropriety by operators in Massachusetts and take appropriate actions. The Board and MassDEP remain committed to protecting public health by ensuring that drinking water operators are properly trained and certified; and that they properly perform their duties.

In 2014, MassDEP contracted with ABC (now named Water Professionals International) to conduct a third-party review of the Massachusetts Operator Certification Program. ABC was provided with copies of MassDEP’s drinking water regulations and policies, as well as the Board’s regulations and policies. Additionally, ABC visited Massachusetts in June 2014 and conducted interviews with MassDEP staff and Board staff. ABC compared the Massachusetts Operator Certification Program with ABC’s Model Standards of Certification, 1st Edition. ABC reported the results of its finding in a report dated September 18, 2014, which included recommendations. The Board and MassDEP used the findings to update appropriate aspects of the program. The Board has updated its applications to require proof that applicants meet the education and experience requirements. Additionally, the Board developed a Code of Conduct that all applicants must agree to sign as part of their application. The Board continues to review issues related to the findings of this report as well as additional issues identified by the Board and its stakeholders.

MassDEP has continued efforts to build a workforce of water quality professionals. The initiative is modeled after a previous initiative entitled “Green Jobs Training Initiative” and includes an environmental justice and diversity component. It is an on-going program. Below is a short list of some of the activities providing support for workforce development:

- Vocational/Technical School Outreach- Provide students with an understanding of drinking water operations and expose them to careers in the field drinking water. Offer information on basic operator certification training classes and certification opportunities.
- Community Colleges- Bristol Community College and Springfield Technical Community College offer drinking water operator curriculum with operator certifications and onsite training opportunities.
- Continuing Education- Continued efforts to work with and partner with workforce development and night life stakeholders to promote Drinking water careers.
- Work with regional planning organizations/universities to develop a drinking water operator “circuit rider” that could provide services to a number of systems.
- Work with public water systems to facilitate inclusion of technical high school students and others as interns or entry-level part-time operators after completion of basic certified operator training and certificate.
- MassDEP/DWP has utilized the bi-weekly PWS *In the Main* newsletter to provide regular information on recruiting new operators, showcasing PWSs with successful in-house training and recruitment programs for new operators.

At the Board meeting on April 1, 2022, members of several contract operator firms and the Massachusetts Water Works Association attended to discuss potential policy changes that would support the licensing of contract operators. In 2024, the Board created and approved a policy regarding the licensing of contract operators, which can be found at the following webpage: <https://www.mass.gov/doc/policy-for-contract-operator-licensing/download>. This policy assists contract operators, who often work in multiple PWS, in standardizing the counting and recording of their experience in their license applications.

In June 2024, several MassDEP Drinking Water Program staff published a paper in the New England Water Works Journal titled “Drinking Water Systems: A Comprehensive Analysis of Public Water Systems, Including Treatment and Distribution Classifications, Operator Licensing, and Future Demands. Massachusetts as a Case Study.” The paper includes data analyses about public water systems and operators in Massachusetts and provides an understanding of the operator landscape amidst challenges such as aging workforce and treatment for emerging contaminants. The paper can be accessed at https://www.journalofnewwa-digital.com/newq/0224_june_2024/MobilePagedArticle.action?articleId=1985410#articleId1985410. MassDEP staff presented this data at the WPI Conference in January 2024, the in-person EPA Region 1 Capacity Development and Operator Certification meeting in April 2024, the New England Water Works Association Annual Conference in September 2024, the Drinking Water Licensing Board Meeting in December 2024, and the Massachusetts Water Works Association Operator Committee meeting in January 2025.