



May 13, 2024

The Honorable Maura Healey
The Honorable Kim Driscoll
Massachusetts State House
24 Beacon St.
Office of the Governor, Room 280
Boston, MA 02133

RE: Recent Plumbing Code Changes

Dear Governor Healey and Lt. Governor Driscoll:

We are writing on behalf of the membership of Massachusetts Water Works Association (MWWA), the American Council of Engineering Companies of Massachusetts (ACEC/MA), the Massachusetts Water Environment Association (MAWEA), the New England Water Environment Association, the New England Water Works Association (NEWWA), RCAP Solutions (RCAP), and the Massachusetts Coalition for Water Resources Stewardship (MCWRS) to ask you to review a recent regulation that has become problematic to our members. On December 8, 2023, the Board of State Examiners of Plumbers and Gas Fitters (Plumbing Board) approved a new Uniform State Plumbing Code, 248 CMR 10.00 (hereafter referred to as Code). Section 10.10 requires "Unoccupied Structures (Pumping, Equipment, Sub-Station, and Similar Facilities)" to have one Accessible unisex/gender-neutral rest room within the facility. This issue came to our attention after the promulgation of the code, and it is proving problematic for a number of reasons which we will outline below. We have communicated our concerns to the Plumbing Board and were less than satisfied with the remedies proposed, nor with a recent delegated authority policy adopted, so we are writing asking your Administration to revisit the Code and to amend section 10.10 to remove the requirement for a bathroom in unoccupied structures.

These types of unoccupied facilities - small water and wastewater pump stations and treatment facilities that may have a small control room at the site to house electrical and instrumentation equipment; prefabricated below grade pump stations accessible only by

at grade hatches or manholes (no above grade structures); drinking water facilities located in wellfields or watersheds where sanitary sewers do not exist and where surface and groundwater protection regulations prohibit septic systems - are not routinely staffed full-time and therefore the need for bathroom facilities may not be warranted. The Occupational Health and Safety Administration regulations which govern workplace standards would not require bathrooms in unoccupied pump houses, so long as the workers have transportation immediately available to nearby toilet facilities. Logistically, many of these facilities are on protected sites with limited space and may not have the available footprint to enlarge the building to accommodate a bathroom (many of these pump houses are the size of a shed). Further, water and wastewater facilities are designated by United States Department of Homeland Security as critical infrastructure; as such, these facilities are generally not open to the public.

Most importantly, from our organizations' perspective, the bathroom requirement presents concerns from a **public health** standpoint. Many of these structures (groundwater wells, pump houses) are within the Zone 1 which is a protected area meant to minimize threats to drinking water sources, which is stipulated within Massachusetts Drinking Water Regulations 310 CMR 22.02.¹ If centralized sewers are not available, on-site waste disposal is a challenge and could potentially be a threat. In our opinion, the Plumbing Board failed to recognize the seriousness of this part of our concern in their response to our letter dated March 6th. Their response was as follows:

“For applicants seeking a variance from the new requirements, the Board offers three recommendations:

- 1. Seek a variance through the normal variance protocol.*
- 2. Use an alternative technology toilet system (248CMR 10.10(2)h), or an outdoor restroom with local Board of Health permission to address concerns about public water protection and security. The new code also allows hand sanitizer stations in lieu of sinks.*
- 3. Submit a code modification request form to address concerns.”*

On their first remedy, we contend that the variance process is burdensome for our Public Water Systems and wastewater utilities. We have many examples where the variances have been denied. One of the most recent examples was the Raynham

¹ <https://www.mass.gov/doc/310-cmr-22-drinking-water/download> “Zone I means the protective radius required around a public water supply well or Wellfield. For Public Water System wells with approved yields of 100,000 gpd or greater, the protective radius is 400 feet. Wellfields and infiltration galleries with approved yields of 10,000 gpd or greater require a 250-foot protective radius. Protective radii for all other Public Water System wells, Wellfields, and infiltration galleries are determined by the following equation: Zone I radius in feet = (150 x log of pumping rate in gpd) - 350. This equation is equivalent to the chart in the Guidelines and Policies for Public Water Systems. A default Zone I radius or a Zone I radius otherwise computed and determined by the Department shall be applied to Transient Non-community Water System (TNC) and Non-transient Non-community Water System (NTNC) wells when there is no metered rate of withdrawal or no approved pumping rate. In no case shall the Zone I radius be less than 100 feet.”

Center Water District who was requesting approval to not install bathrooms at the two new treatment plants that they will be constructing. Both plants are being constructed adjacent to existing treatment facilities which already have adequate bathroom facilities. The Raynham Center Water District had support for these variances from both the local Plumbing Inspector and the Board of Health, yet both variances were denied because the Plumbing Board did not find a hardship existed. In this case the projects, which took one year to design, were to be put out to bid the following week and engineers are scrambling to try to fit the bathrooms into the design. Please see Appendix A which gives more details into the variance requests.

After they sent a response to our initial letter, the Plumbing Board and staff must have recognized that a considerable number of variances were being sought for these types of structures and decided to develop a policy to address delegated authority for unoccupied structures (*"Delegated authority - Unoccupied buildings - i.e. pump stations/electrical substations"*²). Most public bodies we deal with in the Commonwealth will publish a draft policy for discussion during one meeting, entertain comments on it from Board members and the public, and then vote on it at a subsequent meeting. The policy adopted by the Plumbing Board on April 3rd seemingly had no public input or opportunity for comments. In fact, we noticed that someone attending the meeting virtually asked in chat if the public could comment, and that request seemed to go unnoticed or unacknowledged. We know you pride yourself on transparency and this process does not comport with what we would expect from a public agency.

MWWA wrote the Plumbing Board again on April 11th with our concerns about their policy and the lack of engagement and we asked for a meeting to revisit the policy and the exemption thresholds. MWWA was subsequently invited to attend the Plumbing Board meeting on May 1, 2024. MWWA's Executive Director Jennifer Pederson and MWWA's Technical Committee Chair and NEWWA President, Stephen Olson, PE attended the May 1st meeting and reiterated the concerns that were in MWWA's two letters. The chair of the Plumbing Board responded by saying there would be no discussion that day, which was rather disappointing since Pederson and Olson attended in person with the expectation that there may be dialog on this issue.

While the policy is well-intentioned, and the exemption opportunity is most welcome, we find the thresholds adopted for exemption to be somewhat arbitrary, and not practical for most of the proposed water and wastewater infrastructure projects with small unoccupied structures. As such, exemptions might not be possible for many of the unoccupied structures that our members are either planning or required to construct or rehabilitate. By way of illustration, there was variance request submitted by the Town of Stoughton at the May 1st meeting for a 253 square foot prefabricated sewer pumping station which was ordered in 2022 (before the bathroom requirement), and due to supply-chain delays, was only ready to be installed in 2024. When they when to pull the permit, they were informed of the requirement for the bathroom, the building was not

² <https://www.mass.gov/policy-statement/delegated-authority-unoccupied-buildings-ie-pump-stationselectrical-substations>

fabricated with one and therefore a variance was requested; the Board denied the variance and instructed the Town to include a bathroom.

While Board Counsel indicated at the start of the delegated authority policy discussion during the April 3rd meeting that that the bathroom requirement in unoccupied structures was not new, many of our members did not interpret the prior code as having that requirement (requirement in the code for a bathroom in an unoccupied water/wastewater facility). There are many, many drinking water and wastewater pumping stations (and similar structures) that do not contain bathrooms, nor do they have the space available to do so. Had the updated Plumbing Code had a period of concurrency (phased/planned implementation schedule longer than immediately upon publishing the code), we might not be in such an emergent situation as we find ourselves now. However, many of our members have designed, and are out to bid with projects, to meet State Revolving Fund (SRF) loan timelines for drinking water treatment facilities, in which a bathroom was not planned for or included in the design. It is important to note that the equipment requirements, not having people working in the facility, drives the size of these structures/facilities. Even a simple facility with an electrical room, a couple of pressure vessels, and pumping equipment can come in at 3,000 square feet.

Beyond the public health concern that exists from a waste-disposal standpoint, many of these drinking water treatment facilities are being constructed or upgraded to quickly remediate contamination from Per-and Polyfluoroalkyl substances (PFAS), a pressing public health threat that water systems are being required to address. In fact, the USEPA just promulgated a new PFAS regulation on April 10th that is even more stringent than the Commonwealth's own drinking water standard. With this new federal drinking water standard, there are only going to be many more similar projects in the near future. Many Public Water Systems are on a strict schedule, partially dictated by the SRF loan process. These PFAS projects have more favorable financing through the SRF with a zero percent loan and many are receiving additional principal forgiveness because of Bipartisan Infrastructure Law funding. Delays in design, bidding, and permitting stand to jeopardize that favorable funding opportunity.

It's important to note that the Board's delegated authority policy revolves around hardships related only to **space**. We are dismayed to see the Plumbing Board's position is that hardships must be other than financial. Cost needs to be considered as water ratepayers are bearing the burden of paying for these water and wastewater system upgrades, and additional expenses translate into higher rates. If they lose this favorable funding, the rates will only be higher. We have also come to learn that despite the Plumbing Board stating in its response to MWWA that an alternative could be an *"outdoor restroom with local Board of Health permission to address concerns about public water protection and security. The new code also allows hand sanitizer stations in lieu of sinks"*, a portable restroom (aka porta-potty/porta-john) would not suffice as an alternative option; we believe the definition of a "bathroom" needs to allow this as an option for unoccupied structures.

Given the amount of infrastructure improvements taking place not only to address PFAS treatment, but also to take advantage of time-limited federal funding, prompt action is necessary to get this issue resolved. After the meeting on May 1st, we are not encouraged that the Plumbing Board is willing to meaningfully engage with us to find a mutually beneficial solution. We firmly believe this needs a regulatory fix and therefore, MWWA requests that you intervene and that an exemption be granted in regulation to exclude these unoccupied structures from requiring a bathroom, rather than making every Public Water System and wastewater utility and their consultant have to go through some sort of variance or waiver process which has proven to be very difficult to achieve.

We appreciate your immediate attention to this matter and should have any questions, please do not hesitate to contact me at 978-263-1388 or jpederson@masswaterworks.org.

Sincerely,

Jennifer Pederson, Executive Director
Massachusetts Water Works Association

Abbie Goodman, Executive Director
American Council of Engineering Companies of Massachusetts

Philip Guerin, President
Massachusetts Coalition for Water Resources Stewardship

Ben Smith, President
Massachusetts Water Environment Association

Mary Barry, Executive Director
New England Water Environment Association

Kirsten King, Chief Executive Officer
New England Water Works Association

Brian Scales, President & Chief Executive Officer
RCAP Solutions

cc: Layla D'Emilia, Undersecretary, Office of Consumer Affairs & Business Regulation
Sarah Wilkinson, Commissioner, Division of Occupational Licensure
Rebecca Tepper, Secretary, Executive Office of Energy & Environmental Affairs
Bonnie Heiple, Commissioner, MassDEP

About our Organizations:

The **American Council of Engineering Companies of Massachusetts (ACEC/MA)** is the business association of the Massachusetts engineering industry, representing over 120 independent engineering, A/E and land surveying companies engaged in the development of transportation, environmental, industrial, and other infrastructure. Founded in 1960 and headquartered in Boston, MA, ACEC/MA is a member organization of the American Council of Engineering Companies (ACEC) based in Washington, DC. ACEC is a national federation of 52 state and regional organizations.

The **Massachusetts Water Works Association (MWWA)** is a non-profit membership organization representing the public water supply profession. We have 1,500 members throughout the Commonwealth. Through education and advocacy, MWWA is committed to protecting public health and promoting a safe and sufficient supply of drinking water to Massachusetts consumers.

The **Massachusetts Water Environment Association (MAWEA)** is a non-profit organization established in 1965 to provide education, training, advocate for, and promote the exchange of information among water quality professionals. We represent and serve the municipal and industrial wastewater community in Massachusetts.

The **Massachusetts Coalition for Water Resources Stewardship's (MCWRS)** mission is to advocate on behalf of water agencies and professionals for advancing science-based policies and practices that protect the water environment and public health in a sustainable, practical, and effective manner.

The **New England Water Environment Association (NEWEA)** is a non-profit, educational, and technical organization, which has been dedicated to preserving, protecting, and managing the New England water environment since 1929. Our organization provides opportunities for water industry professionals from throughout the six New England states to gain and share knowledge and expertise, network, and perform advocacy and outreach to our communities and elected officials. NEWEA is a Member Association of the international Water Environment Federation (WEF).

The **New England Water Works Association (NEWWA)** is the regional, independent, member-driven association that serves the drinking water profession across the six New England states (CT, MA, ME, NH, RI, and VT). Headquartered in Holliston, Mass., we bring together water utilities, consultants, manufacturers, vendors, regulators, academia, and other interested parties to network, educate, and advocate.

RCAP Solutions (RCAP) is a non-profit organization established in 1969. RCAP Solutions assists small drinking water and wastewater utilities, rural communities, and individuals in finding solutions to their infrastructure needs. We work to build financial, managerial, and operational capacity to rural and tribal communities throughout all six New England states, New York, New Jersey, Pennsylvania, Puerto Rico, and the U.S. Virgin Islands. Our efforts have helped communities access millions of dollars in grants and loans and trained thousands of individuals through customized on-site technical

assistance and workshops. Our professional staff are committed to the strength and vitality of rural America and are available to assist with the extensive and intricate challenges infrastructure development can bring.

APPENDIX A

Case Studies: MA Plumbing Code Variance Requests

The following case studies were written by a Massachusetts engineering firm who recently submitted requests for variances to the Massachusetts Plumbing Code to the Board of State Examiners of Plumbing and Gas Fitters (Board) for three projects. Two of these requests were for new water treatment plants to be constructed for the Raynham Center Water District, and the third request for a small pump station to be constructed for the Town of Harvard. These requests were to waive the requirement for bathrooms in the new facilities. Bathrooms are now required due to recent changes in the MA Plumbing Code that were implemented in December 2023. It is this firm's opinion that these facilities would not have required bathrooms under the previous revision of the Plumbing Code. All three of their variance requests were denied by the Board. We are providing the following descriptions of the three projects and the variance requests that were submitted.

Case Study No.1: John P. Lynn PFAS Water Treatment Plant (Raynham Center W.D.)

Description:

The Raynham Center Water District is planning to construct a new PFAS water treatment plant (WTP) at 418 Titicut Road in Raynham, MA at the location of the Water District's existing wells and treatment facility. The proposed single story treatment building will be approximately **9,700 s.f.** and will house four filters for PFAS removal as well as pumping equipment, process piping, mechanical and electrical equipment. The new treatment building will be located **30 feet** northwest of the existing water treatment plant and **45 feet** southwest of an existing pump station building. Both of these existing buildings contain bathroom facilities that are handicap accessible.

The planning, design, and permitting of this project began in 2021. The project was included in MassDEP's 2023 Intended Use Plan for financial assistance through the State Revolving Fund Loan Program. Under this program, the Water District was required to have completed the design, bidding, and contract award prior to June 28, 2024. The design of this treatment facility was completed prior to when the revision to the plumbing code was published in December 2023. The local permit approval process was completed in February 2024 so that the public bidding process could proceed.

The design for the proposed PFAS treatment plant did not include bathroom facilities as this building will be mostly unoccupied as it is considered an addition to the existing treatment process at the site. Water District staff will only need to visit the facility periodically as part of their normal operational routines at the existing treatment plant. Visits to the facility will typically last only 1 to 2 hours. The direct distance from the farthest distance within the new treatment building to the bathroom facilities in the existing treatment plant and pump station is approximately **245 feet** and **267 feet** respectively. These distances meet the requirements stated in 248 CMR 10.10 (18)(j)4 that would allow the use of existing bathroom facilities that are within **300 feet** from the

regular place of daily work activity, and would therefore not require a separate bathroom in the new facility.

The Town of Raynham's Building Commissioner, Plumbing Inspector and Board of Health were all notified about Water District's request to obtain a waiver from the current plumbing code and not construct a bathroom at the new facility. Each department supported the Water District's request.

Public Hearing Process:

The firm prepared a Variance Request Form on behalf of the Water District and submitted this to the Board on February 5, 2024. The request sought relief from 248 CMR 10.10 which required bathrooms for employees in industrial buildings by utilizing bathrooms located at the existing facilities that were within the distance allowed under 248 CMR 10.10 (18)(j)4. The Board held a hearing on this request at their meeting on March 6, 2024. This request was Variance 24-PV-97 on the agenda. After a brief presentation by the firm and discussion by the Board, the variance request was denied. The Board informed the Water District that a bathroom is required in the new facility.

Conclusion:

It is our opinion that the Board was not consistent with their support of other similar variance requests. At their next meeting on April 3, 2024, the Board approved a similar variance request for the Town of Mansfield (Variance Request 24-PV-116). This request was also to construct a new PFAS treatment plant adjacent to an existing treatment facility that also had bathroom facilities. This facility was actually located further away from the existing facility than the new facility proposed by the Raynham Center Water District. The Board approved this request with minimal discussion. The firm was required to modify the design of the treatment facility to incorporate bathroom facilities that were not in the original plan. These changes were required after the original design had been completed and will now occupy space in the building that was not originally planned. The bidding process on the project is now completed and construction is expected to commence in July 2024.

Case Study No.2: Lake Nip PFAS Water Treatment Plant (Raynham Center W.D.)

Description:

The Raynham Center Water District is also planning to construct a second new PFAS water treatment plant (WTP) at 626 Elm Street East in Raynham, MA at the location of the Water District's existing wells and treatment facility. This treatment plant will be included as part of a single construction contract that will be combined with the John P. Lynn PFAS Water Treatment Plant. The proposed single story treatment building will be approximately **3,000 s.f.** and will house four filters for PFAS removal as well as pumping equipment, process piping, mechanical and electrical equipment. The new treatment building will be located **30 feet** east of the existing water treatment plant. The existing treatment plant contains bathroom facilities that are handicap accessible.

Similar to the John P. Lynn Treatment Plant, the design of this treatment facility was completed when the plumbing code revision was published in December 2023. All local

permit approvals were obtained by February 2024 so that the public bidding process could proceed. This building did not include bathroom facilities in the original design as it will be mostly an unoccupied building. Water District staff will only need to visit the facility periodically as part of their normal operational routines at the existing treatment plant. Visits to the facility will typically last only 1 to 2 hours. The direct distance from the farthest distance within the new treatment building to the bathroom facilities in the existing treatment plant is approximately **205 feet**. This distance meets the requirements stated in 248 CMR 10.10 (18)(j)4 that would allow the use of existing bathroom facilities that are within **300 feet** from the regular place of daily work activity, and would therefore not require a separate bathroom in the new facility.

The Town of Raynham's Building Commissioner, Plumbing Inspector and Board of Health were all notified about Water District's request to obtain a waiver for this facility also. Each department supported the Water District's request.

Public Hearing Process:

The firm prepared a Variance Request Form on behalf of the Water District and submitted this to the Board on February 5, 2024. The request sought relief from 248 CMR 10.10 which required bathrooms for employees in industrial buildings by utilizing bathrooms located at the existing facilities that were within the distance allowed under 248 CMR 10.10 (18)(j)4. The Board held a hearing on this request at their meeting on March 6, 2024. This request was Variance 24-PV-98 on the agenda. After a brief presentation by the firm and discussion by the Board, the variance request was also denied. The Board informed the Water District that a bathroom is also required at this facility.

Conclusion:

As stated in Case Study No.1, it is our opinion that the Board was not consistent with their denial of the Raynham Center Water District's Variance Requests but supported other similar requests, including the Town of Mansfield's project which is significantly further away from the existing building and bathroom facilities than the Lake Nip Treatment Plant.

The firm was required to modify the design of the treatment facility in order to incorporate bathroom facilities that were not in the original plan. These changes were required after the original design had been completed and will now occupy space in the building that was not originally planned.

Case Study No.3: Sheridan Road Pump Station (Town of Harvard)

Description:

The Town of Harvard is planning to construct a new water booster pumping station to be located at 39 Sheridan Road in Devens, MA. This pump station will be constructed in a remote location at the border between the Town of Harvard and Devens. The purpose of the project is to construct an interconnection between the Harvard and

Devens water distribution systems and will become the primary water supply source for the Town of Harvard.

The planning, design, and permitting of this project began in 2022. The project was included in MassDEP's 2023 Intended Use Plan for financial assistance through the State Revolving Fund Loan Program. Under this program, the Town of Harvard is required to complete the design, bidding, and contract award prior to June 28, 2024. The design of this facility was completed prior to when the revision to the plumbing code was published in December 2023. The local permit review process began in October 2023 and was completed in February 2024.

The proposed pump station will be approximately **630 s.f.** and will house pumping equipment, process piping, mechanical and electrical equipment. The building will be an unoccupied structure and did not include any bathroom facilities in the original design. Town of Harvard staff will only need to visit the facility periodically (typically 2 to 3 times per week) as the operation of this station is fully automatic. Visits to the facility will typically last less than one hour as the station was designed to have minimal maintenance requirements.

The permitting process had been completed and public bidding process for the project had begun when the Town was informed that a bathroom would now be required in order to comply with the December 2023 revision to the Plumbing Code. This created a significant hardship for this project as the pump station is located within the Devens Regional Enterprise Zone (DREZ) wellhead protection overlay district and the DREZ has a ban on the construction of new septic systems. Also, due to its remote location, there is no public sewer within close proximity to the project site. The building size is too small to construct an adequate size bathroom within the current footprint. The building size would need to be increased approximately 15% in order to provide adequate space for a handicap accessible bathroom. However, there would still be no practical method to handle waste generated by the bathroom.

The Devens Building Commissioner, Plumbing Inspector and Board of Health were all notified about Town of Harvard's request to obtain a waiver from the current plumbing code and not construct a bathroom at the new facility. Each department supported the Town's request.

Public Hearing Process:

The firm prepared a Variance Request Form on behalf of the Town of Harvard and submitted this to the Board on March 15, 2024. The request sought relief from 248 CMR 10.10 which required bathrooms for employees in industrial buildings. The Board held a hearing on this request at their meeting on April 3, 2024. This request was Variance 24-PV-122 on the agenda. The firm provided a brief overview of the project and explained the hardship associated with requiring a bathroom at this location. The Board ignored our hardship explanation and denied the variance request. The Board informed the Town that a bathroom is required in the new facility and to consider alternative technology such as an incinerator toilet.

Conclusion:

It is our opinion that the Board did not provide a reasonable decision when denying the variance request. The firm and the Town provided a very clear explanation on the hardship that existed with this project due to its size, use, and especially its remote location. This is a small unoccupied structure that will require very limited attendance. The project was already out to bid at the time of the hearing as the Town needed to complete the bidding process prior to their Annual Town Meeting in order to meet the SRF deadline for funding approval.

Incorporating a bathroom into the design of the facility will require a substantial change for the project. At the beginning of the Board's Public Hearing on April 3rd, the Board approved additional revisions to the Plumbing Code including facilities less than 200 s.f. would not require a bathroom. It is our opinion that these requirements should be revisited as this pump station is minimal in size and cannot easily incorporate a bathroom within the current footprint without substantial changes to the pumping, piping, mechanical and electrical equipment. Adding an incinerator toilet at this facility is not a feasible alternative. Any changes to the building will need to be made during construction as the bidding process has now been completed and construction is expected to commence in July 2024.