Public Employees for Environmental Responsibility
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November 4, 2019

Representative Kate Hogan
24 Beacon Street, Room 163
Boston, MA 02133

Representative Jennifer E. Benson
24 Beacon Street, Room 236
Boston, MA 02133

Senator Julian Cyr
24 Beacon Street, Room 309
Boston, MA 02133

Dear Representatives Hogan and Benson, and Senator Cyr,

As sponsors of the emergency Bill H.3851 and S.2284 ("An Act establishing an interagency [per-and polyfluoroalkyl substances] PFAS task force," hereinafter "PFAS bill"), Public Employees for Environmental Responsibility (PEER) is writing to inform you that while you are attempting to set up this task force to - among other things - determine sources of PFAS contamination, the U.S. Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MADEP) are knowingly moving forward with a permit to allow massive PFAS contamination in the Merrimack River, which supplies the drinking water for roughly 500,000 people. We believe this issue requires immediate legislative attention. Our proposal would ensure that the Commonwealth is not permitting PFAS contamination of the Commonwealth's waters while simultaneously spending taxpayer money to find, test for, and remediate the very same contamination. Our specific request and explanation for why it is necessary are set forth below.

The PFAS bill. As you state in the Emergency Preamble for the PFAS bill, PFAS contamination is an "emerging crisis," and steps must be taken "for the immediate preservation of the public health." The current PFAS bill would create an 18 member task force to, among other things, create response plans for known locations of PFAS, identify the sources of PFAS contamination and exposure pathways that pose the greatest risk to public health and the environment, assess how state agencies can most effectively use their existing authority and resources to reduce or eliminate priority risks from PFAS contamination, and investigate mitigation costs for known locations of PFAS contamination. Governor Charlie Baker recently filed a supplemental budget bill containing $7.4 million for statewide PFAS testing and response.

Known locations of PFAS contamination. As stated above, the proposed PFAS task force would be identifying sources of PFAS contamination that pose a risk to human health and the environment. On September 25, 2019, EPA Region 1 and MADEP issued a National Pollutant Discharge Elimination System (NPDES) and Massachusetts Clean Waters Act permit to the City of Lowell, MA to discharge from the Lowell Regional Wastewater Utility and from Combined Sewer Overflow (CSO) outfalls at nine locations into the Merrimack River, Beaver Brook, and Concord River (see Figure 1, below, for location of the primary outfall).[1] The permit becomes effective on November 24, 2019.

Figure 1

The permit states that Lowell accepts landfill leachate from the Turnkey landfill in Rochester, NH. Waste Management, Inc., the owner of the Turnkey landfill, is allowed to truck up to 100,000 gallons per day to the Lowell Wastewater Treatment Plant (WWTP). According to one of the commenters on the permit, this leachate contains extremely high levels of PFAS. Specifically, the leachate from Turnkey contains levels of: 8,200 parts per trillion (ppt) of PFOA, 430 ppt of PFOS, 330 ppt of PFNA, and 810 ppt of PFHxS.[2] As you are aware, EPA has a Lifetime Health Advisory (LHA) of 70 ppt for two of these PFAS: PFOA and PFOS. In addition, MADEP established an Office of Research and Standards Guideline (ORSG) level for drinking water of 70 ppt for five PFAS: PFOA, PFOS, PFNA, PFHxS, and PFHpA, separately or combined. MADEP is poised to issue a PFAS drinking water standard (known as a Maximum Contaminant Level, or MCL), of 20 ppt in groundwater or drinking water for the sum of six PFAS: PFOA, PFOS, PFNA, PFHxS, PFHpA, and PFDA.[3] The commenter asked that steps be taken to reduce the amount of PFAS discharged from the facility.

EPA responded by saying: 1) they "encourage" Lowell to "take steps to reduce per and polyfluoroalkyl substances from industrial users that are discharging directly to the treatment plant and monitor these compounds in their effluent"; 2) there are no specific water quality criteria for PFAS, but "EPA reserves broad discretion to ask for additional information pursuant

[1] See https://www3.epa.gov/region1/npdes/permits/2019/finalma0100633permit.pdf
[2] Id. at 69.
[3] https://www.mass.gov/files/documents/2019/06/20/pfas-stakeholder-presentation-20190620.pdf

to Section 308 of the CWA and may utilize this authority during the permit term if facts are brought to its attention that would warrant that course of action"; 3) its February 2019 PFAS Action Plan "identifies wastewater effluent as a common source of PFAS and drinking water as a common source of exposure to the population"; 4) their Third Unregulated Contaminant Monitoring Requirement ("UCMR3") rule for Public Water Systems required public water supply systems to submit data on 6 PFAS (PFOS, PFOA, PFNA, PFHxS, PFHpA, and PFBS) from 2013 to 2015, and PFAS "were not detected in any of the water treatment plants downstream of the LRWU." EPA concluded that, "[i]n light of the above data, the Final Permit does not require monitoring for these pollutants during this permit cycle but EPA may require monitoring in a subsequent permit."[4]

Therefore, while you are attempting to set up a task force to determine sources of PFAS contamination, EPA and MADEP are knowingly allowing massive PFAS contamination in the Merrimack River. The Merrimack River is a Class B Treated Water Supply, providing drinking water for roughly 500,000 people in five Massachusetts communities; Lowell, Methuen, Andover, Tewksbury and Lawrence.[5] If the leachate is treated at the Lowell facility, the PFAS in the effluent may actually be *higher* than the numbers stated in the permit, as treatment can result in the recombination of short-chain PFAS into long-chain PFAS, resulting in higher amounts of PFAS in effluent than influent.[6] Note that while four PFAS were identified in the Turnkey leachate, it is very possible that other, untested short-chain PFAS are in the leachate as well. EPA has the authority under the Clean Water Act to require monitoring and sampling of effluents, and yet they deliberately chose not to.

EPA's reasoning behind its decision not to monitor for PFAS is disingenuous. EPA appears to base its decision not to require monitoring on the fact that PFAS was not found in downstream Public Water Systems (PWS) during the 2013-2015 Unregulated Contaminant Monitoring Rule 3 (UCMR3) tests. EPA was correct in stating that none of these towns detected PFAS when they tested pursuant to the UCMR3 in 2013-2015; however, the detection limits used in those tests were higher than EPA's LHA. Specifically, the detection limits used in those 2013-2015 tests were:

Detection limits used in the UCMR3 (ug/L)

PFBS	0.09 ug/L
PFHpA	0.01 ug/L
PFHxS	0.03 ug/L
PFNA	0.02 ug/L
PFOA	0.02 ug/L
PFOS	0.04 ug/L

Since 1 ug/L = 1 part per billion (ppb), these detection limits are in ppb, not ppt. Therefore, the detection limits used during the UCMR3 were:

[4] Id. at 70-71.
[5] https://www.epa.gov/merrimackriver/about-merrimack
[6] See, e.g., Coggan, T., et al, An investigation into per- and polyfluoroalkyl substances (PFAS) in nineteen Australian wastewater treatment plants (WWTPs), *Heliyon*, Vol. 5(8), 2019, https://www.sciencedirect.com/science/article/pii/S2405844019359766#bib1; personal communication, MWRA.

Detection limits used in the UCMR3 in ppt

PFBS	90 ppt
PFHpA	10 ppt
PFHxS	30 ppt
PFNA	20 ppt
PFOA	20 ppt
PFOS	40 ppt

Therefore, it is entirely possible that the 2013-2015 PFAS monitoring done at the PWSs downstream of Lowell's WWTP were above the LHA, and the high detection limits at the laboratory masked these results. In fact, MADEP – a co-signatory to the permit - is well aware that the PFAS tests done under the UCMR3 were meaningless. MADEP recently wrote to PEER: "The detection limits established by UCMR3 in 2013 are higher than 70 ppt if you sum all of them. The EPA Health Advisory at the time was 400 ppt for PFOA and 200 ppt for PFOS. The US EPA Health Advisory of 70 ppt for PFOS and PFOA was not established until 2016. The MassDEP Guideline of 70 ppt for 5 PFAS compounds was not established until 2018. In addition, labs are able to achieve a greater sensitivity today than they were in 2013. We are looking at this issue of the higher detection limits used during UCMR3."[7] We therefore do not know whether drinking water supplies downstream of Lowell's WWTP are contaminated with PFAS. EPA and MADEP's failure to even require monitoring in this situation is mind-boggling.

The NPDES/Massachusetts Clean Waters Act permit is contrary to the emergency PFAS bill and MADEP's forthcoming MCL. The Governor of Massachusetts just pledged $7.4 million for communities to test and remediate for PFAS contamination. MADEP is poised to issue regulations limiting PFAS in groundwater and drinking water to 20 ppt for six PFAS compounds. And yet, EPA and MADEP are relying on data they know are underestimates, and allowing the discharge of PFAS more than 400 times the proposed regulatory limit.

While we applaud the effort to address the PFAS contamination crisis, it is nonsensical to use taxpayer money for PFAS testing and remediation while simultaneously approving the discharge of massive PFAS contamination into surface waters. The PFAS entering the Merrimack River are not simply disappearing; PFAS are called the "forever chemical" because of their persistence and bioaccumulation potentials. Moreover, it is likely that this Lowell permit is not the only NPDES/Massachusetts Clean Waters Act permit that is ignoring PFAS contamination. Finally, when the Massachusetts MCL comes into effect, permits like this one will place a huge financial burden on downstream municipalities to remediate PFAS contamination. In this case, that contamination is coming from a neighboring state.

Conclusion. It is clear that despite EPA's PFAS Action Plan, the agency is not taking PFAS contamination seriously. Indeed, the appointment of Dennis Deziel, former Dow Chemical

[7] Personal communication, MADEP to PEER, April 16, 2019.

Company's Director of Federal Government Affairs, as EPA Region 1's Regional Administrator, makes it even less likely that PFAS contamination will be a priority in New England.[8]

We therefore urge you to consider adding an emergency paragraph (11) to M.G.L. Chapter 21 Section 43 to read: "The director shall adopt regulations to ensure that per-and polyfluoroalkyl substances PFOS, PFOA, PFNA, PFHxS, PFHpA and PFBS (hereinafter "regulated PFAS") discharges are monitored as a function of any permit and that no regulated PFAS in excess of departmental recommended limits for drinking water is discharged into the surface waters of the Commonwealth."

This section would ensure that the Commonwealth is not permitting massive PFAS contamination of the Commonwealth's waters while simultaneously spending taxpayer money to find, test for, and remediate the very same contamination.

Thank you for your consideration.

Sincerely,

Tim Whitehouse
Executive Director

[8] See e.g., Mr. Deziel's many conflicts of interest: https://www.bostonglobe.com/metro/2019/10/22/new-epa-chief-new-england-barred-from-many-decisions-because-conflicts/5qR0Xop1bBPFqxWpy3wAxO/story.html?event=event25